

The Beeman

Volunteer Ag Literacy Project

Book

“The Beeman” is a wonderful book that tells the story of a beekeeper and his grandson. Through the eyes of the grandson, the story of taking care of the bees is told. The grandson describes the equipment, the beehive, the types of bees, jobs they do and the tasty honey that we enjoy.

How the Project Works

Approximate time needed: 45 minutes

Supplies needed: Copies of flower worksheet, colored chalk and cotton balls for each student.

1. Volunteers read to students in K-5 classrooms.
2. Following the reading, volunteers will complete a simple hands-on activity with the students discussing the book.

Checklist

- ✓ Collect teacher evaluation after the presentation.
- ✓ Complete the attached feedback form once you have completed project.

Part 1: Introduction (SUGGESTED TIME: 5 MINUTES)

1. Briefly introduce yourself and discuss your connection to agriculture.
2. If you live on a farm or ranch, you may want to bring props, crop samples or photos of the farm, equipment, or animals.
3. Ask students a question about agriculture. (What does the word agriculture mean? Where does your food come from? Who grows your food?)

Part 2: Words of Agriculture (SUGGESTED TIME: 10 MINUTES)

1. Introduce the F's of Agriculture. Example: “Agriculture is a big word and it covers many different things. I am going to teach you the F's of New Mexico Agriculture to help you understand agriculture in our state.” Say, “Now repeat after me and hold up a finger for each word as we go through the F's.” “The first F is Farming...” (The F words poster is on www.nmaic.org with 'Who Grew My Soup?' Project).

- Farming and ranching – *raising crops and animals to feed all of us*
- Food – *food for us and our animals; e.g. dairy, onions, pecans, alfalfa, etc.*
- Fabric – *Wool, Cotton*
- Flowers – *Nurseries and Greenhouses*
- Forestry – *Lumber for homes, Christmas Trees*
- Fuel – *Ethanol made from plant material such as corn and biodiesel made from a diverse mix of raw materials including recycled cooking oil, soybean oil and animal fats.*

Common Core Standards - English

K.RI.1	2.RI.1	4.RI.1
1.RI.1	3.RI.1	5.RI.1

Part 3: Book Reading (SUGGESTED TIME: 10 minutes)

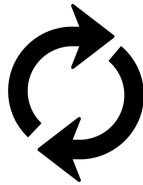
1. Introduce the story. For example, “I am going to read a story about one of our pollinators – bees. Pollination is when pollen is moved within a plant or from plant to plant to produce more plants or fruits.”

2. Introduce the characters in the story: “The characters in this book are: Grandpa, who is the beeman, his grandson – who tells the story and the bees. There are three different types of bees. (Show the picture of the bees). The queen bee’s job is to lay eggs. The drone bee’s job is to mate with the queen. The worker bee has many different jobs from tidying up the hive (sometimes called house bee), making food for the queen, gathering nectar to guarding the hive.”
3. Show off the great images in the book.
4. PRACTICE reading the book before your classroom visit!
5. Become a master beekeeper by reading the information in the back of *The Beeman*.

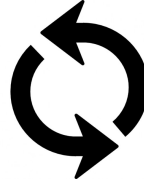
Part 4: Transition Activity - (SUGGESTED TIME: 5 MINUTES)”

THE ROUND DANCE

1. Have the students walk quickly in circles (determine the size of the circle by the amount of space in the classroom), first one way (clockwise) and then have them reverse (counter clockwise).
2. Remind students of the purpose of this movement in the story you just read (The dance allows other bees to taste what was found. The faster the dance (speed of the circles) the more abundant the supply of nectar.



clockwise



counter clockwise

The activity was adapted from The Beeman Educator’s Guide.

Helpful Hints Before Your Classroom Visit

- Practice! Prepare by reading book and practicing activity. You want to fit your presentation and activity within the time scheduled. Teachers have very busy schedules so please try to stick to your allotted time.
- Check in with the teacher. If possible, before your presentation, briefly visit with the teacher. Share a copy of the activity and ask if there are students with special needs that need special accommodations.
- Can everyone see and hear? Before you start reading, make sure all the students can see and hear the book so they will be good listeners.
- Move the book around as you read. Either while you are reading, or after reading each page, move the book so each student can see the great images. This is especially important with younger grades.
- Pay close attention to the students’ mood. Move along fast enough to maintain student’s interest, but slow enough for all students to thoroughly enjoy the story.
- Most importantly, have fun! Enjoy this wonderful experience of reading aloud and teaching children about the importance of agriculture.



Wells Fargo sponsorship has made this Ag Literacy Project possible.



Part 5: Pollination Activity

(SUGGESTED TIME: 15 MINUTES)

MATERIALS:

Copy of Flower Worksheet (one for each student)

Colored Chalk (one piece for each student)

Cotton Balls (one for each student)

1. Hand out worksheet and a piece of chalk to each student.
2. Have students color the center of the flower on the worksheet.
3. Let students know that YOU are pretending to be a bee.
4. Show the students your cotton ball. Share with the students that the cotton ball is going to act like the fine hairs on the legs and body of the bee. When the bee moves from flower to flower gathering nectar it picks up pollen from the flower and spreads it.
5. Take your cotton ball and move from one student's colored flower to another until you have touched every student's flower with the cotton ball.
6. Show the students what your cotton ball looks like now. Ask students what they think the bee looks like after visiting many flowers.
7. Hand out a cotton ball to each student.
8. Let the students take turns being the "bee" and pollinating the flowers.
9. Conclude with asking students if bees are an important part of pollinating our plants and flowers. Remind students bees are important in the pollination of many of our favorite foods (not just making honey) like apples, pears, strawberries, pumpkins, chocolate and for the adults – coffee. Bees also pollinate alfalfa which is a main feed source for our dairy cattle – where we get milk, yogurt and cheese.
10. Share "Fun Facts About Bees" while students are taking turns being the "bee."
11. Share the Montana Pollinator poster and point out that bees are just one of the many pollinators

This lesson was adapted from Oklahoma Ag In The Classroom lesson "Bee Smart Bee Happy."

Part 6: Wrap Up (If Time Allows)

1. Ask if there are any questions.
2. If you have time, review the F's of New Mexico Agriculture.
3. Leave the book, the poster, and the teacher packet with the teacher. Collect the teacher evaluation (as the presenter(s), you may want to sign the poster).

QUESTIONS:

Contact New Mexico Ag In The Classroom with any questions you may have on the Ag Literacy Project or to request a training session.

Cheryl Butterfield
agclass1@nmflb.org
575-799-0102

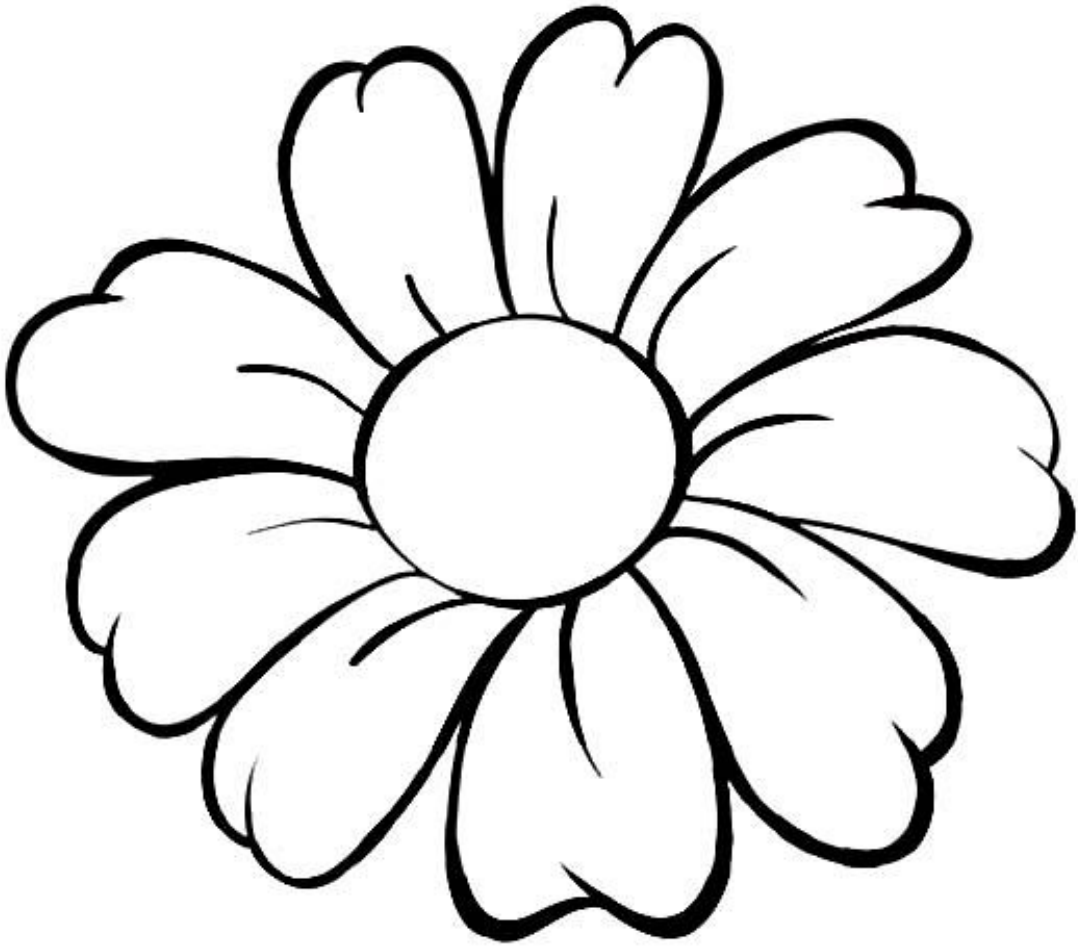
Traci Curry
agclass@nmflb.org
575-532-4714

Visit www.nmaitc.org for free lessons and resources.

Fun Bee Facts

- Honeybees are social insects. They depend on one another for survival.
- Bees live in groups called colonies. A colony can have tens of thousands of bees.
- There is only one queen in each colony. She is the mother of the colony, laying more than 1,800 eggs a day.
- Bees make honey from nectar. Nectar is a sweet liquid found inside flower blossoms.
- The bees collect the nectar and carry it to the colony in pouches within their bodies.
- Beekeepers harvest honey just like any other crop. When they take honey from a hive, they are very careful to leave enough so the bees can survive the winter.
- One bee would have to make 154 trips, carrying tiny amounts of nectar from the flower to the hive, just to make one teaspoonful of honey.
- If one bee had to make a pound of honey all by herself, she would have to spend 160,000 hours and make 80,000 trips. That would be the same as flying around the world three times.
- One worker bee actually makes only one twelfth (1/12) of a teaspoon of honey in her lifetime. But working together, a colony of bees may bring in as much as 50 pounds of nectar in a day and make 200 or 300 pounds of honey in a year.
- Honeybees communicate through their movements. They attract the attention of other bees and let them know where to find nectar using movements that look like a dance. The movements show the other bees which way to go and how far.

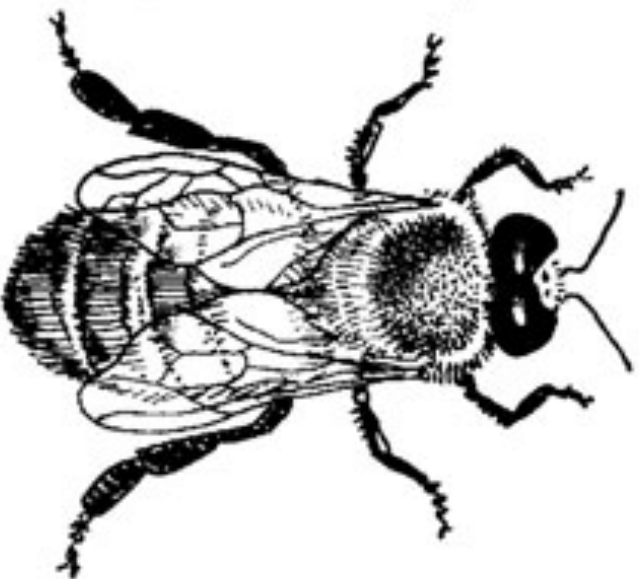
This information was adapted from Oklahoma Ag In The Classroom "Facts About Bees and Honey."



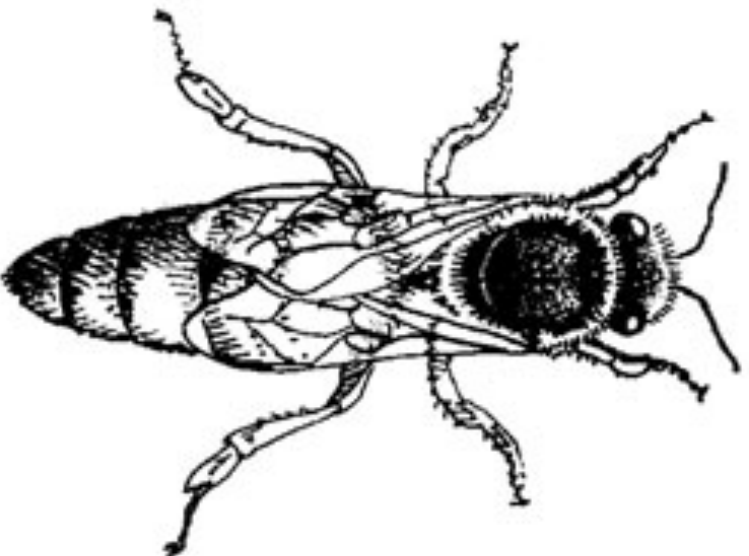
Worker



Drone



Queen



Comments are greatly appreciated about your participation. We value feedback that lets us know what worked or didn't work or what we could do next time to make the presentations easier for our volunteers.

Please return this form to:

E-mail: Cheryl at agclass1@nmflb.org

Fax: 575.532.4710

or

Mail: New Mexico Ag in the Classroom

533 Four Winds Dr.

Ft. Sumner, NM 88119



2016 Agriculture Literacy Project Teacher Evaluation Form

Presentation: The Beeman by Laurie Krebs and Valeria Cis

School:

Grade Level:

Presenter(s):

Do you feel the information presented helped your students have a better understanding of agriculture? (If yes, please explain.)

Share any comments on what you found valuable as well as ways we could improve the presentation:

NM Ag in the Classroom www.nmaitc.org has great resources for teachers and offers free teacher trainings, workshops, and classroom presentations. Please feel free to provide your e-mail address to receive the NM Ag in the Classroom E-newsletter.

Please answer these questions using this scale:

1-Strongly Disagree 2- Disagree 3- Neutral 4- Agree 5- Strongly Agree



- | | | | | | |
|--|---|---|---|---|---|
| 1. The presenter communicated clearly and effectively. | 1 | 2 | 3 | 4 | 5 |
| 2. The presentation was well organized and used your time effectively. | 1 | 2 | 3 | 4 | 5 |
| 3. You will use the lessons/activity in your classroom in the future. | 1 | 2 | 3 | 4 | 5 |
| 4. The presenter(s) invited and answered questions. | 1 | 2 | 3 | 4 | 5 |
| 5. I would participate in another Ag literacy project event again. | 1 | 2 | 3 | 4 | 5 |

Please feel free to contact us at agclass1@nmflb.org

We really appreciate your feedback and hope you enjoy your book.

Thank you for your hard work and dedication in educating our future generations!