

## Shoe-Bee, Let's Dance

Share with students the following information. Bees must have the help of other bees to make honey. One bee would have to make 154 trips, carrying tiny amounts of nectar from the flower to the hive, just to make one teaspoon 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 1/12 of a teaspoon of honey in her lifetime. By 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 a year.



### Materials

- Paper
- Pencils
- Popsicle sticks
- Pictures of bees
- Crayons or markers

Honeybees communicate with one another through their movements. They attract the attention of other bees and let them know where to find nectar through movements that look like some kind of dance. The movements show the other bees which way to go and how far. The bees usually move in the form of a figure eight. Slow dancing--the food source, or nectar, is far away. Fast dancing means it's closer.

Have each student draw the outline of a classmate's shoe on a sheet of paper. Each student will need three outlines of the same shoe. One outline will represent the body of a bee, with the toe end serving as the stinger and the heel end serving as the bee's head. Have students cross the other two outlines and glue them behind the bee's body to serve as wings. Place the toe ends of the wings toward the heel end of the body. Provide students with pictures of bees in books or magazines, and have them color their puppets to look like bees. Give each student a popsicle stick to glue to the back of his or her puppet. Ask students to perform a bee dance with their puppets for far away and close nectar.



## Bees at Your Fingertips

Try making fingerprint honeybees with an inked stamp pad. Press your index finger on the pad and then on a clean piece of paper. Make several fingerprints across the paper. With a fine felt-tipped maker, add wings, antennae, and legs to your creations. Other bugs can also be made with fingerprints.

### Materials

- Paper
- Crayons
- Stamp pad

## Bee Math

1. To gather one pound of honey a bee must travel a distance equal to at least three times around the world. How many miles will it travel? (Earth at the equator = 4,900 miles)

\_\_\_\_\_ miles

2. It takes 160,000 bee hours to produce one pound of pure honey. How many hours would it take to make 1/2 pound of honey?

\_\_\_\_\_ miles

3. Using the information from problem 1, figure out how many miles a bee must travel to make 5 pounds of honey.

\_\_\_\_\_ miles

4. A bee must make approximately 154 trips to and from its hive to produce a teaspoon of honey. How many trips would it take to make a tablespoon of honey?  
Three teaspoons = one tablespoon.

\_\_\_\_\_ trips

