Beneficial Bugs at Molly's Organic Farm: Make Honey Taffy

Introduction

In the book, Molly encounters several organic farm helpers including ladybugs, spiders, ground beetles, and praying mantises. These bugs are considered beneficial because they help farmers to control other bugs. Honeybees, bumblebees, moths and butterflies are also helpful because they pollinate the flowers. In this activity students learn about the most prolific of the pollinators the honeybee and make a yummy treat from honey.

Materials Needed

- 2 C Honey, ½ tsp. baking soda, 2 tsp. vinegar, 1/8 tsp. salt & 1 ½ Tbs. butter for taffy
- Bee diagram for labeling

Key Concepts

- Students will identify the major structures of insects (honeybees) –arms, wings and legs.
- Students learn what nectar, honey and pollen are; where the come from and how bees and flowers share a mutually beneficial relationship.

Procedure

1. Introduce students to the honeybee and explain that this insect is responsible for pollinating 1/3 of the worlds food supply. Show students drawings and photos of honeybees and provide a bee diagram for students. Have students identify and label the major structures of the honeybee (wings, body, antennae).
2. Explain how bees collect nectar from flowers while distributing pollen from the flowers. After the honeybees collect nectar they mix it with enzymes and deposit it in honeycomb. Then bees remove excess moisture from the mixture by fanning it with their wings- the result honey!
3. Make the honey taffy. You can either make with group or prepare in advance and have students work with the taffy when it is cool. Cook the honey and vinegar in a saucepan, stir until syrup becomes brittle when tested in cold water. Remove from heat and add butter, salt and baking soda. Stir until it stops foaming. Pour into buttered pan. When cool pull taffy until it is light in color and cut into small squares. Enjoy!

Nature Connections

- Discuss the issues facing the honeybees. You can visit http://kids.nationalgeographic.com/kids/stories/animalsnature/honey-bee-mystery/ for a kids friendly article on the plight of the bees.

- Brainstorm things that children can do to help honeybees in their own backyard such as putting out a bee bath, asking for local honey or building a bee colony.

Additional Resources

Visit this site to get a diagram of the honeybee body parts: **http://ag.arizona.edu/pubs/insects/ahb/act2.gif**

For an excellent website linking honeybees with national science and geography standards visit: **http://www.scholastic.com/browse/unitplan.jsp?id=283**