

## VIDEO LIBRARY: FOLLOW YOUR FOOD SERIES



### THAT'S SO SWEET!

A look at honey production in the Twin Cities

Follow along on the fascinating journey that honey travels from the hive to your home. Kristy Lynn Allen, head beekeeper at the Beez Kneez in Minneapolis, introduces the process of honey collection, extraction, and delivery. Learn the important role honey bees play in honey production and pollination of some of our favorite fruits and vegetables! *Video length: 6 minutes*

## RELATED LESSON PLANS AND RESOURCES

### The Honey Files (3-5)

“The Honey Files” is a comprehensive video and educational guide available from the National Honey Board. This 20-minute VHS/DVD video and 96-page teacher’s guide will have you and your students buzzing! Designed for students in 3rd-5th grade.

### Pollination Minnesota

Pollinate Minnesota provides resources for teachers in educating about and with honey bees. Pollinate Minnesota educators and staff members work with teachers to align their programming with curricula including geography, history, art, literacy and math.

### Honey as a Biomolecule (9-12)

Students will learn about different types of carbohydrates, the role of enzymes in breaking down complex sugars into simple sugars, and how different sugars impact our perception of sweetness and may impact human health.

### Flower Power (3-5) and (6-8)

Students will observe physical characteristics of flowers and explore principles of pollination.

### Honey Bees: A Pollination Simulation (3-5)

Students will identify the parts of a honey bee, the stages of its life cycle, and its role in pollination.

### Good Taste: Honey Bee Forager Food Preference (9-12)

Students learn about the foraging behavior of bees and hypothesize if the bee’s behavior is related to its ability to detect sugar. Students will then determine which type of foraging bee would be best for pollination or honey production.

### Fermentation of Honey (9-12)

This lesson explains the processes of cellular respiration and fermentation and how it applies to the production and processing of honey.

## MN ACADEMIC STANDARDS/BENCHMARKS AND INTEGRATION IDEAS

Content Area	Benchmarks	Integration Idea
Science	5.4.1.1 Describe how plant and animal structures and their functions provide an advantage for survival in a given natural system	Dissect flowers and other plants that are pollinated in your area. Identify the structures that allow for these plants to be pollinated and how this impacts honey production.
Science	7.4.4.1.2 Describe ways that human activities can change the populations and communicates in an ecosystem	Investigate the bee population in your community and Minnesota. Research strategies to improve the bee population and identify which strategies the school and/or class could feasibly do. Act on these strategies!
Social Studies	9.1.1.4 Examine a public policy issue by defining the problem, developing alternative courses of action, evaluating the consequences of each alternative, selecting a course of action and designing a plan to implement the action and resolve the problem	Research the policies that have been developed concerning protecting pollinators in Minnesota. Analyze these policies to see if they are addressing the issues regarding pollinators in Minnesota. Develop alternative action options and evaluate their consequences and impact on citizens and farmers.

## FUN FACTS

- Honey can change its taste depending on what flowers the bees collected nectar from.
- The amount of honey collected from a hive can range from 0-300 pounds and depends on many different factors.
- There are 64 calories in one tablespoon of honey (compared to 48 calories in a tbsp. of cane sugar).



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