



# Nature-Watch Activity Kit

## Food Doesn't Grow in Supermarkets

(Nature Watch Kit #163)

### Kit Contents

<u>Item:</u>	<u>Kit Size</u>	
	<u>25</u>	<u>100</u>
Honey "A"	25	100
Honey "B"	25	100
Honey "C"	25	100
Honey "D"	25	100
Instructor Manual	1	1

*This page includes the Next Generation Science Standards (NGSS) mapping for this kit and Science, Technology, Engineering, and Math (STEM) extensions (on back) to use in adapting and extending this activity to other subject areas.*

### Next Generation Science Standards Alignment

- K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.
- K-ESS2-2. Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.
- K-ESS3-3. Communicate solutions that will reduce the impact of humans on the land, water, air, and/or other living things in the local environment.
- 2-LS2-2. Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.
- 3-LS2-1. Construct an argument that some animals form groups that help members survive.
- 4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.
- MS-LS2-5. Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

**See Back for  
STEM Extensions**

This Nature Watch Activity Kit contains an Instructor Manual and materials to implement the curriculum. The kit was designed to be used with adult supervision only. Unsupervised use is not recommended.

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## STEM Extensions

### Science

Our sense of smell greatly influences how we taste things. Try a quick experiment to see for yourself. Use some candy that comes in a variety of fruity flavors. Put on a blindfold, taste one of the candies at random. Can you tell what flavor it is? Then, try another piece while holding your nose shut. Can you tell what the flavor is now? Repeat this a couple times to see how different your sense of taste is without smell. Then, eat just half of one candy, still holding your nose. Release your nose and eat the other half. How different does it taste now?

Go online to learn about the life cycle of bees; then, create a representation of the life cycle in the form of a mobile or poster. Does it remind you of any other life cycles that you have learned about?

Learn about the different roles of bees in a colony (queen, worker, drone). Once you understand what each type of bee does, act out what it would sound like if a queen bee, a worker bee, and a drone got together for dinner. What would they talk about and what would each one say about their job?

Explore more about the plants from which the four types of honey came from. What do they look like? Where and how do they grow? What similarities and differences can you find among them? Does it help you understand the similarities and differences of the honeys any better? Then, find some other common honey sources and see which ones might be available in your location.

Learn about government's role in food safety at <http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm2006971.htm>

### Technology

Create a Power Point presentation or a flyer using computer software to call attention to the plight of honeybees. Point out the threats to honeybees and offer some possible solutions.

Go online to watch a bee cam – a real-time video feed that gives you a close-up view of live bees. Watch the bees and take note of interesting behaviors. How do they interact with their surroundings? How active are they? Make observations and then discuss them with your classmates to compare notes.

### Engineering

Using cookbooks or the Internet, find out how people sometimes use honey as a substitute for other ingredients in baking. Then, pick a favorite baking recipe and try to substitute honey. How does it turn out? (Adult supervision required.)

Build your own bee hotel to provide a nesting spot for solitary bees. You can find lots of different models online. Try a few different models to see which one the bees like best.

Find some videos online to see the making, harvesting, and processing of honey. How does the video add to what you already know?

### Math

Have a snack that includes fruit with stickers still attached that indicate where the fruit came from. Think about the means of transportation involved in getting the fruit to you. Calculate the distance it had to travel (by air, water, and/or land). Rank the different fruits according to how far they had to travel to get to you. Then, find out what local farms are nearby and what the distance would be for food to travel from there to your location.

Make a larger-than-life honeycomb with hexagonal compartments. Measure the volume of one of the compartments to see how much honey could fit in it. Then, multiply by the number of compartments to see how much honey your gigantic honeycomb could hold.