



# Nature-Watch Activity Kit

## Save the Bees Bracelet

(Nature Watch Kit #167s)

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

### 167s Kit Contents

<u>Item</u>	<u>Kit Size</u>	
	<u>25</u>	<u>100</u>
Letter Bead Pack	1	4
Bracelet Wire	25	100
Bracelet Clasps	25	100
Yellow Beads	250	1000
Manual	1	1
Contents Page	1	1

### **Next Generation Science Standards Alignment**

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.

K-LS1-1. Use observations to describe patterns of what plants and animals (including humans) need to survive.

3-LS2-1. Construct an argument that some animals form groups that help members survive.

3-LS3-2. Use evidence to support the explanation that traits can be influenced by the environment.

4-LS1-1. Construct an argument that plants and animals have internal and external structures that function to support survival, growth, behavior, and reproduction.

**See Back for STEM Extensions Chart**



# Save the Bees Bracelet

(Nature Watch Kit #167)

## Science

Learn more about Colony Collapse Disorder by reading a book such as “From Bears and Trees to Mushrooms and Bees: A Children's Book” by David Marshall. Explore how fungi play an important role in the health of bees? Visit the U.S. Department of Agriculture and the Environmental Protection Agency’s websites to study the phenomenon. Discuss what you think are the best solutions for addressing this problem.

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 studied? Does the timing of these life cycle changes differ for different types of bees?

Explore more about the plants from which different types of honey come. 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.

## Technology

Create a Power Point presentation or a flyer using computer software to teach others about the different kinds of bees that are social and solitary. You can also explore the different roles of bees in a colony (queen, worker, drone).

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

Go online and watch videos of beekeepers harvesting honey from beehives. Pay attention to the tools they use. Using common household items, can you build a tool that would help you harvest honey?

Beekeepers often wear protective clothing. How would you design a new protective bee suit? Try drawing it out and asking your classmates for feedback to improve your design.

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.

## Math

Enjoy a snack that includes fruit. Ensure that the fruit labels that indicate where the fruit comes from are still attached. Discuss 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 calculate the distance that food would travel to get to you if it came from those local farms. To expand your discussion, include conversation about the environmental costs of transportation. How much fuel is used for each distance?

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.