



Preschool Educator Guide: Honeybee

National Standards (K)

4.1 Science as Inquiry

- Understanding scientific inquiry
- Abilities necessary to do science inquiry

4.3 Life Sciences

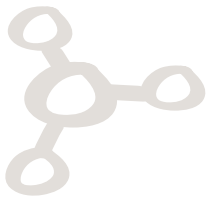
- Characteristics of organisms
- Life cycles of organisms
- Organisms and environments



The Learning Continuum: Before, During and After Your Visit

Guide Theme

In preparation for a visit to the New York Hall of Science, each child will imagine that he or she is a scientist. As a group of scientists, your students will use the inquiry method to practice observation skills and make discoveries through exploration and play. Placing a NYSCI visit at the center of an inquiry provides the students with continuity and purpose, and provides teachers with a way of assessing student understanding.



Begin Exploration at School

Before coming to NYSCI, students can practice being scientists at school by trying the continuum activities and reading books from the list provided. These continuum activities vary in time, depth and work to prepare early learners to get the most out of their trip.

Exploration at NYSCI

The students will experience a honeybee-themed activity at NYSCI. After the guided activity, the students will have time to use their skills and explore the exhibits in the Preschool Studio.

Preschool Studio Exhibits List

- Loft
- Ball Drop Wall
- Discovery Boxes
- Puppet Theater
- Brickworks
- Train Table
- Soft Arch



Finish Exploration at School

Students can continue their experience at school with one or more of the continuum activities.



Continuum Activities

Honeybee Antennae

All insects have antennae and each one uses it for different things. We use our hands to touch and our nose to smell. Honeybees use their antennae as “feelers.” We’ll be making our own antennae today.

Time: 20 minutes

Materials

- Construction paper, crayons
- Markers (or paint)
- 2 pipe cleaners
- 2 pom-poms
- Glue
- Tape
- Honey (optional)

Instructions

1. Cut out a strip of construction paper about 2 inches thick and long enough to wrap around your forehead. (Make sure to make it an inch or two longer to tape or staple.)
2. Use crayons or markers to make the headband colorful.
3. Glue pom-poms to one end of each pipe cleaner.
4. Put the other end of the pipe cleaners on the headband about 4 inches apart.
5. Staple or tape them into place. (If using staples, it is recommended to place a layer of tape across the staple so it doesn’t scratch the student’s head.)
6. Once antennae are attached, staple or tape the ends of the strip together to fit around their forehead.
7. Read a story or do an activity wearing the antennae, or smell, touch and taste a drop of honey.

Bee-Science Fun

What happens when bees go from flower to flower? They are doing something called pollination. This is when they carry pollen from flower to flower. We will try to do the same thing. Some of the students will be flowers and others will be bees.

Time: 10 minutes

Caution: Students may be allergic to flowers.

Materials

- Cotton balls
- Flowers with prominent stamen (lilies, orchids, daisies or hibiscus)

Instructions

1. Set up the students representing flowers around the room. Have the students representing bees stand in a line, holding the cotton balls.
2. Have the bees go from flower to flower gently rubbing the cotton ball on the stamen of the flower, like the fuzzy body of a bee.
3. They are bees gathering nectar and on their way, they help move pollen around so that the plants can make seeds.



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Bee Anatomy

What parts of the bee do we know already? There are four wings, two antennae and six legs. We'll be making our own bee.

Time: 20 minutes

Materials

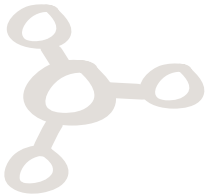
- Bee template (find or create your own)
- Crayons
- Glue
- Construction paper
- Scissors

Instructions

1. Students can cut out all of the template pictures. They can practice counting all of the pieces or identify shapes of the template pieces.
2. Glue all of the pieces together.
3. Have students write their name on it. If desired, students may label each of the body parts. There should be 4 wings, 2 antennae and six legs.

Optional

Create a class beehive with a queen bee on a bulletin board.





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Curriculum Connections

Guide Theme

Classifying: Arranging or distributing objects, events, or information according to some method or skill.

Creating Models: Displaying information, using multi-sensory representations.

Generalizing: Drawing general conclusion from particulars.

Observing: Becoming aware of an object or event by using any of the senses (or extensions of the senses) to identify properties.

Predicting: Making a forecast of future events or conditions expected to exist.

Animal Diversity: How do variations in form and function help animals meet their needs?



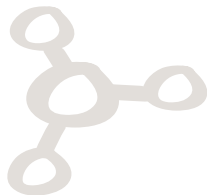
Book List

Honeybee's Busy Day – Richard Fowler

Honeybees – Deborah Heiligman (Reference/Pictures)

Look Closer Bugs – DK Publishing

Insects – Barbara Taylor



Vocabulary List

- Antennae
- Honey
- Pollination
- Wings
- Insect

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