

# SCIENCE

## FROM HOME



## Make Your Own Honeycomb and Bees!

Honeybees (*Apis mellifera*) are not native to the United States. They were brought by Europeans when they came to North America. Different bees in a colony (group of bees) have different roles. Worker bees are females and find food, tend to the hive, and do most of the work. Drones are males, and they mate with the queen. The queen lays eggs and uses chemical signals to guide the colony's behavior. Wax is used to make the honeycombs, and nectar that is brought in from flowers is made into honey. The different sections of a honeycomb are called cells. Some cells will hold larvae, which grow into adult bees. Other cells will store other things, like honey!

### Know before you begin

- This activity should be done inside
- All supplies are easy to find, substitute or modify
- Adult supervision is required to this activity
- Please choose a safe space for this activity
- See the end of the activity for photos of the completed craft!

### Materials

- Toilet paper or paper towel roll
- Hot glue (use only with adult permission and supervision)
- Yellow and black pompoms (recommended 0.3 in/10 mm size)
- Black and white pipe cleaners
- Scissors (use with adult permission and supervision!)
- Ruler
- Googly eyes (optional)
- Paint or markers (optional)

### Instructions

To make the honeycomb

- Remove any stuck toilet paper or paper towel from the roll.
- Squish the roll in half so that it is flat, no longer a circle.
- On the flat side, measure one inch from the edge, and then additional one-inch marks for the length of the tube.



# SCIENCE

## FROM HOME



- Cut the one-inch sections of the tube.
- Open the tube into a circle again. Rotate 45 degrees and squish the tube again.
- Open the tube and rotate so the creases are on the top and bottom. Squish the tube and reopen.
- When the tube is open again, you should have six sides, a hexagon. This is the shape of each individual honeycomb in a beehive.
- Repeat until you have as many individual hexagons as you want. These are the “cells” in the honeycomb. Each cell would either house honey, bee larva or other necessary items for life in a beehive.
- Optional step: If you want, you can paint the hexagons before gluing them together! Make sure you wait until the paint is completely dry before gluing!
- Using the hot glue, begin to glue one side of one cell to another, fitting together as many cells as you have. Once you have your first two glued together, glue on the sides that are already glued together, not the new cell. CAUTION: Hot glue can burn! Adult supervision needed!



# SCIENCE FROM HOME



To make the bees

- Cut black pipe cleaners into inch segments.
- Cut white pipe cleaners into three-inch segments.
- Hot glue one black pom-pom in between two yellow pom-poms. Wait and let dry completely.
- Fold three of the black one-inch segments in half.
- Hot glue the folded section of the pipe cleaner in the middle of the pom-pom section. Repeat for each pom-pom section.
- Fold one of the 3-inch white pipe cleaner segments in half, then fold the halves in on themselves, forming a heart shape.
- Hot glue the middle fold of the white pipe cleaner to the top of the middle of the black pom-pom segment.
- Optional: you can add tiny googly eyes if you would like! Hot glue two googly eyes on the end of one of the yellow pom-pom sections.
- Repeat for as many bees as you would like!



## References

[Honeybee](#)

[About Honey Bees - Types, Races, and Anatomy](#)