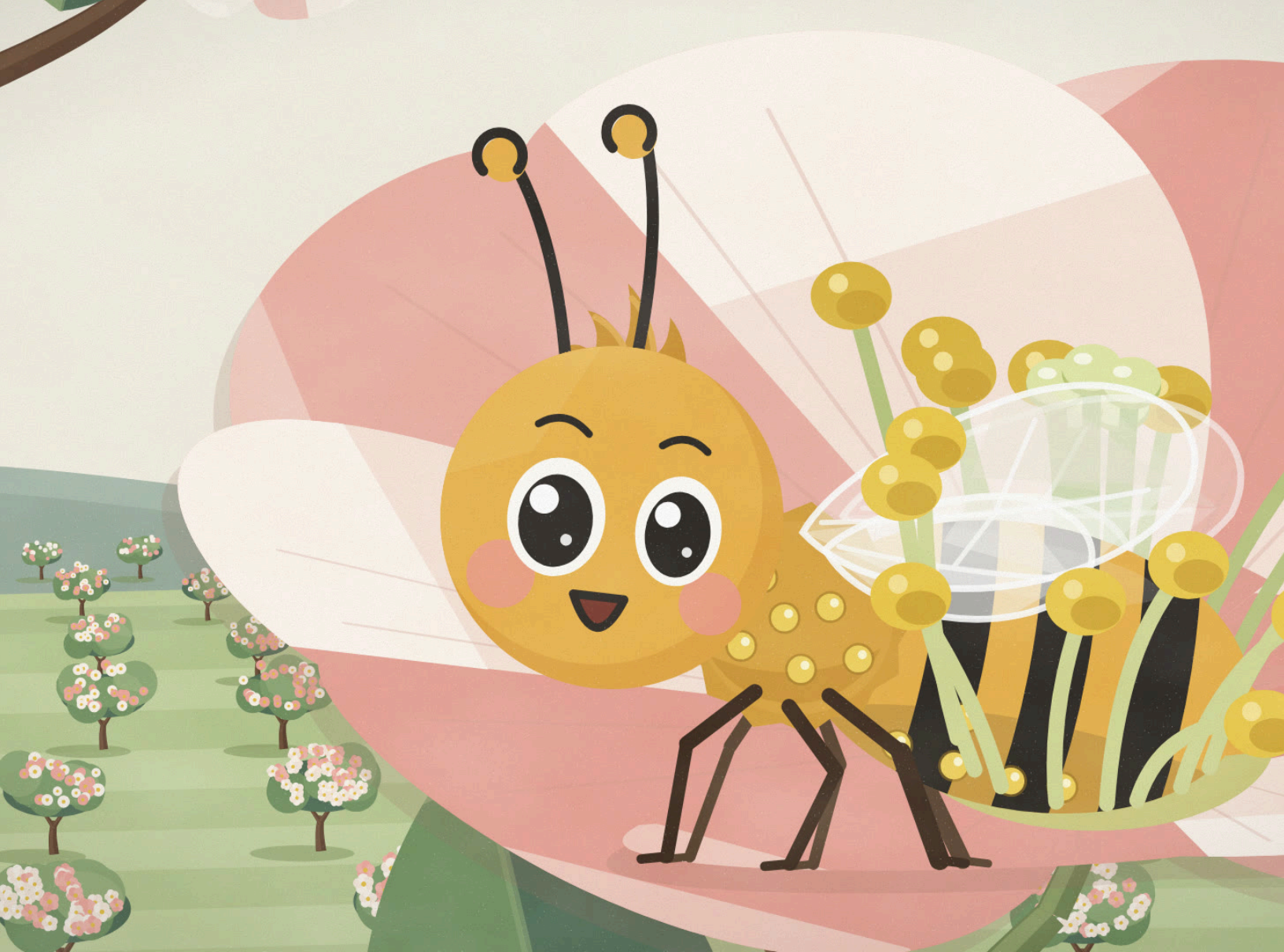




BUZZ & WONDER • BEA'S BIG DAY, EPISODE 1

How Do Bees Make Honey?

A free teacher pack for the 6-minute video. For kids 5 to 8, at home or in the classroom.

Guide

Learning goals, new words and when to pause

Word cards

Nectar, pollen, pollination, honeycomb

Let's talk

5 questions and fun facts

Make & do

Coloring, a picture quiz, the waggle dance, a pollinator pot

Watch it free on YouTube: youtube.com/@buzzandwonder · Free to print and share for home and classroom use.

What kids learn

Bea is a honey bee on her very first day finding food for her family. Along the way, kids find out where honey really comes from, and how bees help apples grow.

Learning goals: after watching, kids can say that...

- 1 Bees drink **nectar** from flowers, and **pollen** sticks to their fuzzy bodies.
- 2 When bees carry pollen between flowers of the same kind, the flowers can grow fruit and seeds. This is called **pollination**.
- 3 Back at the hive, bees turn nectar into honey and store it in the **honeycomb**, to feed the whole hive.

New words

NECTAR

POLLEN

POLLINATION

HONEYCOMB

Each word is said at least twice, pops up on screen, and comes back in the quiz at the end.

Watch it together

Bea's story stops to ask questions. Give kids time to shout out the answer before the video does.

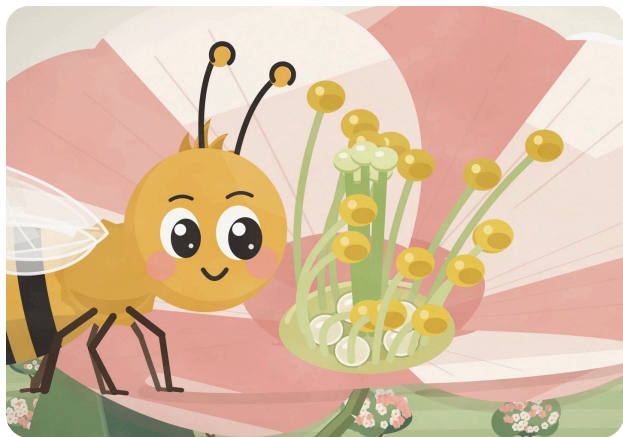
0:59	"Can Bea do it?"
2:00	"What color is it?" (yellow pollen)
3:10	"How do you think she tells her sisters?"
4:02	"What is it now?" (honey!)
5:20	Quiz time: three questions, with a pause for each

Chapters

0:00	A tiny friend
0:26	Meet Bea
1:06	Bee vision
1:26	Nectar and pollen
2:13	Pollination
3:02	The waggle dance
3:29	Making honey
4:24	Wow fact!
4:42	Thank you, Bea!
5:01	Be kind to bees
5:20	Quiz time!

Before you watch: ask "Where does honey come from?" and write down the kids' ideas. **After:** look at the list again together. What do they know now?

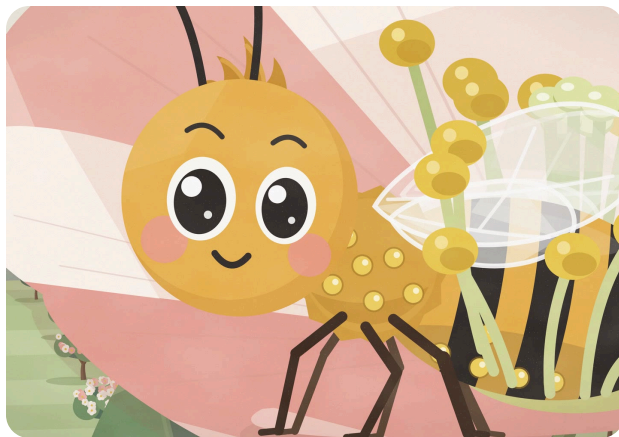
✂ Cut along the dashed lines. Say each word, then clap its parts: NEC · TAR!



NECTAR

NEC · TAR

A sweet, sugary drink that flowers make.
Bees sip it up.



POLLEN

POL · LEN

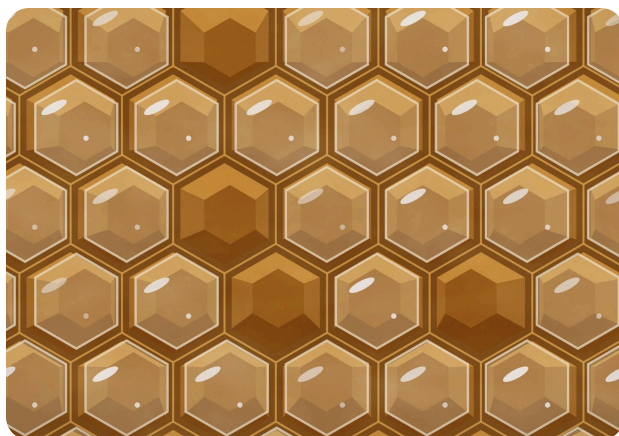
Tiny grains, like yellow dust, from inside a flower. It sticks to a bee's fuzz.



POLLINATION

POL · LI · NA · TION

Moving pollen to another flower of the same kind, so it can grow fruit and seeds.



HONEYCOMB

HON · EY · COMB

Little six-sided rooms made of wax,
where bees store their honey.

Let's talk!

1 What did Bea drink from the apple flower? And what stuck to her fuzzy body?

Listen for: nectar, a sweet drink; yellow pollen. She packed some pollen into baskets on her back legs as food for the baby bees.

2 How did Bea help the apple tree? What might happen if no bees visited the flowers?

Listen for: she carried pollen to a flower on another apple tree (pollination), so it could grow into an apple with seeds. Without visitors, fewer flowers would become apples.

3 How did Bea tell her sisters where the flowers were? How could you show a friend the way without talking?

Listen for: the waggle dance shows which way to fly and how far to go. Any pointing, walking or acting-out idea counts.

4 The bees fanned the nectar with their wings. What did it turn into? Why do bees save it?

Listen for: honey; it's food for the whole family, even in winter when there are no flowers.

5 One bee makes only a tiny drop of honey in her whole life. So how does the honeycomb get full? When do you work together with others?

Listen for: thousands of sisters work together. Then share times kids team up at home or at school.

Did you know?

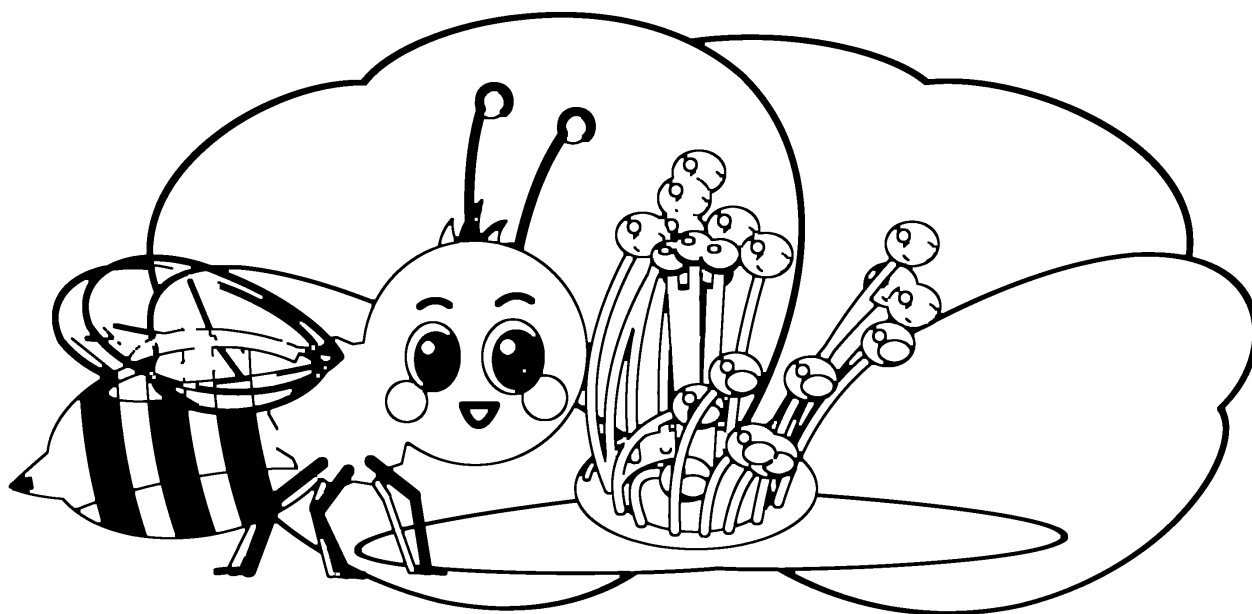
- Bees make wax from tiny spots on their bellies. No flowers needed!
- A bee's wings beat more than 200 times a second. That's the buzz!
- Bees have five eyes: two big ones and three tiny ones on top of the head.

More flower helpers

Most bees don't make honey at all! Butterflies, moths, bats and thousands of other kinds of bees help flowers too. About 4,000 kinds of bees live in the U.S. Honey bees first came from Europe.

Color Bea!

Bea is visiting an apple flower. Color her, her flower and her stripes. Then draw some pollen on her fuzzy body. **What color is pollen?**



Bea is drinking

My name is

PICTURE QUIZ

Circle the right picture!

1. Which one is nectar, the sweet drink bees sip from flowers?



A



B



C

2. Bea carried pollen from apple flower to apple flower. What grew?



A



B



C

3. Bees fan nectar in the honeycomb. What does it turn into?



A



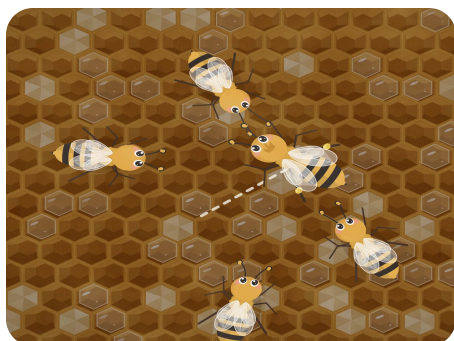
B



C

Answers: 1. B, nectar - 2. A, an apple (that's pollination!) - 3. C, honey

Do the waggle dance!



1. Hide a paper flower somewhere in the room. That's the flower patch!
2. One child is Bea. Start at the "hive" and dance: wiggle-walk in a straight line toward the flower, then loop back around to the start and do it again.
3. A longer wiggle-walk means the flowers are farther away.
4. Her sisters watch, then "fly" off to find the flower. Take turns being Bea!

In a real hive it's dark, so the sisters feel the dance with their antennae. The direction of the wiggle-walk shows which way to fly, and how long it lasts shows how far.

Plant a pollinator pot



1. Find a pot with holes in the bottom and fill it with potting soil.
2. Choose flowers bees love. Flowers that grow wild where you live are best. Ask at a garden center which ones grow well near you.
3. Plant seeds or small plants, water them gently, and put the pot in a sunny spot.
4. No bug sprays! Then watch who comes to visit. Watch bees, but don't touch them.

Grown-ups: pick a few kinds that bloom at different times, from spring to fall, and skip plants that are poisonous to young children, such as foxglove.

Bee safety: if a bee buzzes by, stay calm and walk away slowly. No swatting! Bees only sting to keep themselves and their home safe. If you get stung, tell a grown-up.

Science notes

To keep it clear for 5-year-olds, the episode says some things simply. Here's the fuller picture.

- **"A special tummy, just for carrying nectar."** This is the honey stomach (crop), separate from the stomach a bee uses for her own food. Full, it can weigh almost as much as the bee.
- **"Special bee juice."** As bees pass nectar mouth to mouth, they add enzymes that start turning it into honey. Fanning dries it out until honey is only about 18% water; then they seal each cell with a wax cap.
- **Pollen** is the bees' protein food, packed into "baskets" on their back legs and fed to the young as bee bread. Honey is made from nectar, not pollen.
- **Pollination is a happy accident.** Bees visit flowers for food; the pollen moves along the way. Apple flowers need pollen from a different apple tree (another variety) to grow fruit.
- **Bee vision.** Bees see ultraviolet patterns on flowers that we can't. The colors in the episode are an artist's way of imagining them.
- **The waggle dance** was decoded by Karl von Frisch, who shared the 1973 Nobel Prize. The dance points the way relative to the sun, and the length of the wiggle run shows the distance.
- **About 1/12 of a teaspoon.** That's roughly how much honey one bee makes in her life (a National Honey Board figure).
- **The hive.** One queen (the mom, not the boss) lays all the eggs. Thousands of daughters, the worker bees, do all the jobs, and a few males (drones) never gather food.

Bee safety

Bees sting only to protect themselves or their home. Teach kids to stay calm, not to swat, and to walk away slowly, and to tell a grown-up if they're stung. Know whether anyone in your group has a sting allergy.

Sources

What is Pollination? (USDA Forest Service): <https://www.fs.usda.gov/managing-land/wildflowers/pollinators/what-is-pollination>
About Honey Bees (University of Arkansas Extension): <https://www.uaex.uada.edu/farm-ranch/special-programs/beekeeping/about-honey-bees.aspx>

How Honey Is Made (National Honey Board): <https://honey.com/about-honey/how-honey-is-made>

Orchard Pollination (Penn State Extension): <https://extension.psu.edu/orchard-pollination-pollinizers-pollinators-and-weather>

How this was made

Bea's Big Day is animated in code written by AI agents, with AI voices, music and sound effects, under human creative direction. Every frame is drawn from that code; nothing in the episode is AI-generated video. All facts were checked against the sources above.