Let's Make a Virtual Pollinator-Free Ice Cream Sundae

It's not easy, because pollinators make most ice cream sundae ingredients possible in the first place. But you can try!

Overview

Grades 2-8

45 min

Topics

Environmental Science

STEM

45 min Grades 2-8

About the Activity

It's not easy, because pollinators make most ice cream sundae ingredients possible in the first place. But you can try!

Pollinators support our food supply and are responsible for one out of every three bites of food we eat each day, including most of the delicious components of an ice cream sundae. That makes them essential to global food production, but unfortunately, many species of native pollinators are declining at an alarming rate.

This activity is designed to outline just how important pollinators are to the meals and desserts you love.

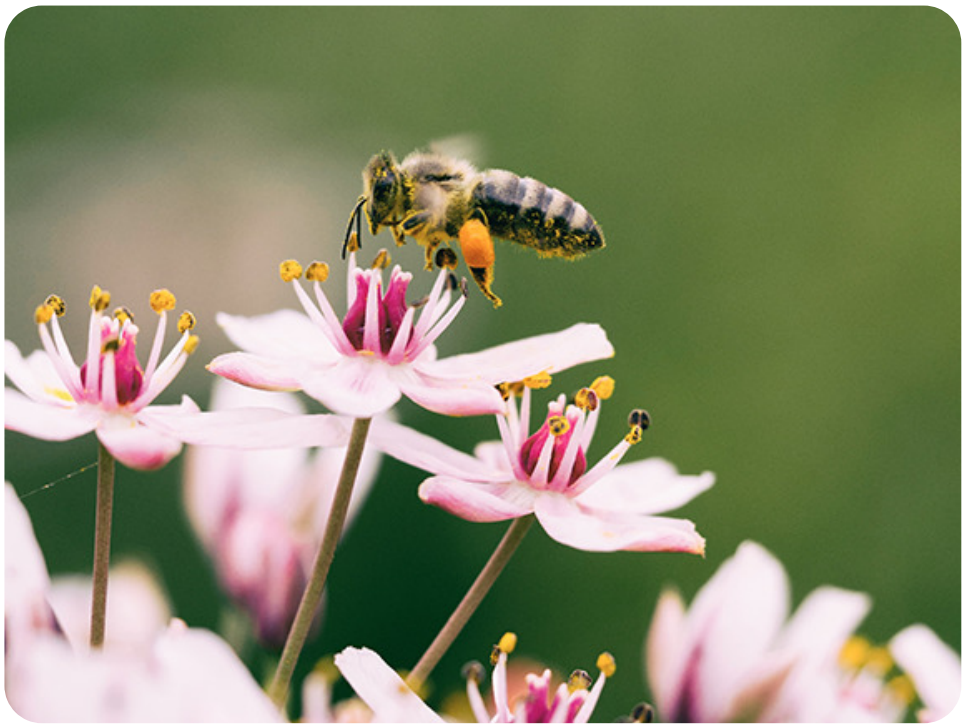
This activity is part of our 4-H at Home Native Bees Series. See the rest of the activities here.

Materials

- [ ] Printed pictures of ice cream sundae ingredients
- [ ] Answer key
- [ ] Scissors
- [ ] List of pollinated plants

Activity Steps

1. Use scissors to cut out the individual sundae ingredients shown on the printout, and lay them all out in front of you.



DID YOU KNOW?

One third (one out of three bites, or 33%) of our food needs pollinators to be produced.

2 Now, choose your favorite ingredients and build your own dream ice cream sundae using the photos.

DID YOU KNOW?

Do you have a sweet tooth? Chocolate plants (cacao) need tiny pollinators called chocolate midges. These pollinators are a type of fly that visits the cacao flowers which grow on the stems of the plant.

3 After you build your ice cream sundae, use **the answer key** to remove all ingredients that are made possible by pollinators.

DID YOU KNOW?

Animals need pollinators too. Many animals, such as cows, need to eat plants for their food, and some of the plants they eat need pollinators. Dairy cows often eat alfalfa, which is pollinated by bees, and healthy cows use nutrients from their food to produce milk.

4 After you remove all the ingredients that are made possible by pollinators, the ingredients left are the only items available to eat in a world without pollinators.

DID YOU KNOW?

Most fruits that we eat require pollinators to transfer the pollen so that the fruit is formed. Crops like apple, blueberry, pear, and almond need or benefit from pollinators. Some crops like grape, peach, and wheat (used to make flour) have flowers that can pollinate themselves.

5 Ice cream sundaes aren't the only delicious food that relies on pollinators. Check out the entire **list of pollinated plants** so that you can learn about other popular foods made possible by pollinators.

DID YOU KNOW?

Insects are not the only pollinators. Birds, bats, lizards and even lemurs can be pollinators. For example, agave, an important crop in the southwest, is pollinated by bats.

Test Your Knowledge

See how much you've learned about this theme

Question 1

Which of these plants cannot self-pollinate, and needs the help of a pollinator?

a. Almonds
b. Peaches
c. Wheat
d.

Question 2

How much of the food we eat needs pollinators?

a. 50%
b. 10%
c. 33%
d. 22%

Question 3

Fill in the blank: How do pollinators help animals, such as cows?

a. They help pollinate the foods animals eat and support their food supply

Question 4

Which type of insect pollinates chocolate trees?

a. Bees
b. Flies
c. Ladybugs
d. Butterflies

Question 5

True/False: Bats pollinate agave crops.

a. True
b. False

Note: Answers can be found on the last page of the PDF

45 min Grades 2-8

Reflection Questions

Bonus questions to inspire wonder:

1. Think about other food that you eat. What would your daily diet be like without pollinators?
2. Do all plants need animal pollinators to make fruits and seeds?
3. What are some ways you can educate others about the importance of pollinators?
4. What are some things you can do to make more habitats for pollinators?
5. Which ingredient in the ice cream activity were you most surprised to learn required the help of pollinators?

Investigate and Explore

Take what you've learned to the next level to learn more and explore the possibilities. Explore the everyday world around you. See how native bees make a difference in the foods we eat. These two videos are a great place to start, but also take a closer look outdoors, whether in a local pollinator garden, or in your own backyard: Ice cream and bees video: https://www.kqed.org/science/1946996/this-bee-gets-punched-by-flowers-for-your-ice-cream Leafcutter bees video: https://youtu.be/cHJ2nLADy7A

Career Connections

STEM Careers If you liked learning about the many foods that bees help to create, you might enjoy a career in STEM. STEM careers are exciting and rewarding, and you can pursue a STEM-related career wherever you live, whether you're in a city, a rural community, or anywhere in between. Watch this video and learn what it takes to be a toxicologist from Kimberly Hodge-Bell of Bayer Crop Science.

Test Your Knowledge answers

1) a. Almonds. **2)** c. 33%. **3)** a. They help pollinate the foods animals eat and support their food supply. **4)** b. Flies. **5)** a. True.

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