

Bees Buzzing in an Apple Orchard

COLORFUL LEARNING

Apples appear in a variety of colors and sizes. Do you know how this colorful and delicious fruit starts out? Flower buds form on mature trees and open into fragrant apple blossoms. In the spring, you might see blooming apple trees brightening neighborhoods. Commercial apple farms intentionally plant rows of apple seedlings in carefully tended orchards that mature into rows and rows of productive apple trees. An average-sized commercial apple farm can produce thousands of apples every year. But farmers cannot do that job alone. They need a lot of help from mighty bees!



Ava W.



CONNECT each stage of an apple's life with the care and attention it needs from when the buds are blossoming and pollinated to when the fruit is harvested and transported to its destination, which could be your school cafeteria.

From Bud to Blossom to Fruit

SKETCH A STAGE OF GROWTH ON THE LEFT AND WRITE WHAT CARE IS NEEDED AT THIS STAGE ON THE RIGHT.

Illustrate a close-up view of a bud going from the dormant stage to the "silver tip" stage as it swells.

Example:

Apple trees need at least 6 hours of direct sunlight daily.

Illustrate a close-up image of a "half-inch green bud" emerging into a bloom.

Example:

Water is essential for growth.

Example:

Apple blossoms need cross-pollination in order to become fruit.

Illustrate a close-up of an apple blossom fully opened with a stamen and stigma.

Bees Buzzing in an Apple Orchard

COLORFUL LEARNING



RESPOND to the orchard's need for pollinators. Apple orchards depend heavily on visits from bees and other pollinators in order for fruit to grow. There are many species of bees, but sadly the world's entire bee population has been in decline for years. We all need to help protect bee communities and support their survival so they can continue to pollinate the vegetables and fruits we enjoy, like apples.



Katie L.

RISKS TO POLLINATORS:

What could be putting bees at risk?

Example: Pollution interferes with bees' ability to smell where they should pollinate blossoms that are ready for them.

1. _____

2. _____

3. _____

BEE HELPFUL:

What can we do to help bees and other pollinators?

Example: Bees love clover, so leave it alone when you are weeding your lawn.

1. _____

2. _____

3. _____



THINKING SHEET

Created in collaboration with Mott's

Education

©2023 Crayola



MOTT'S is a registered trademark of Mott's LLP.

Bees Buzzing in an Apple Orchard

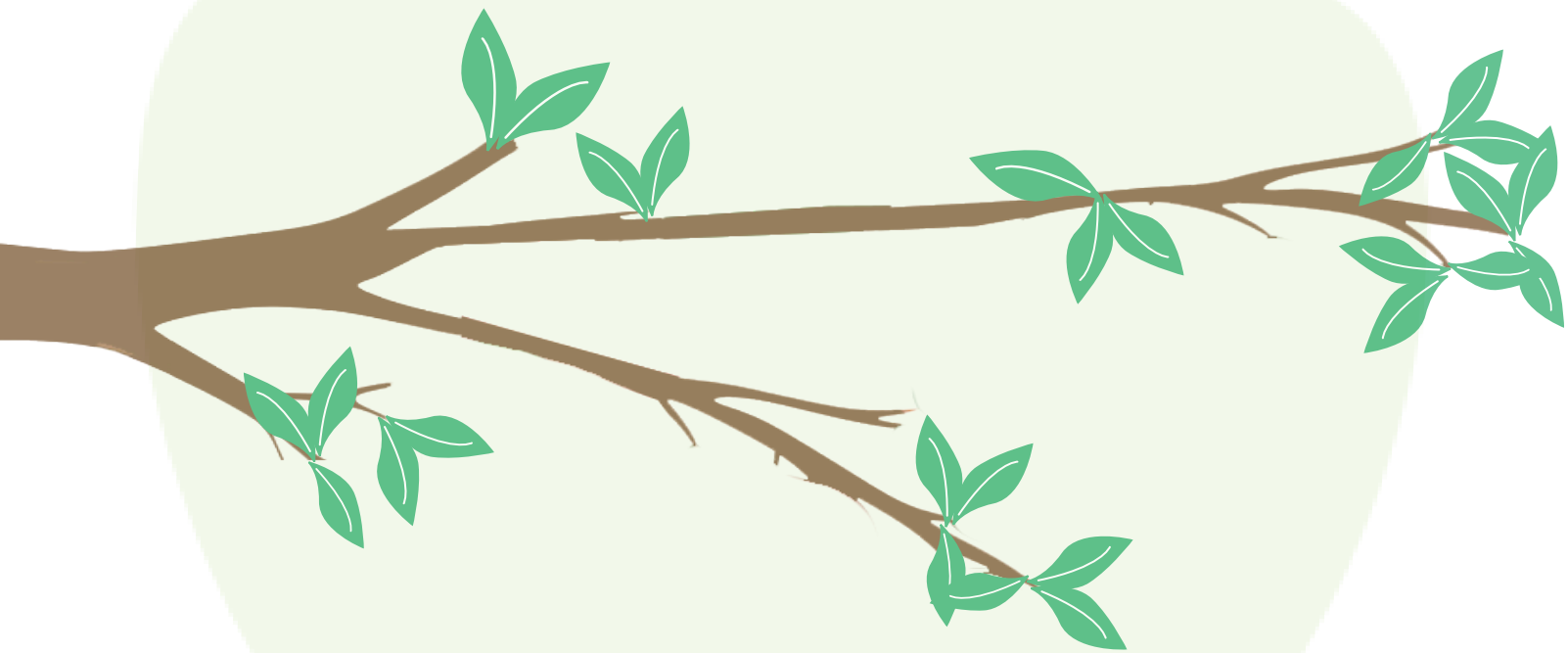
COLORFUL LEARNING



CREATE a sketch that shows bees pollinating apple blossoms at an apple orchard. Bees are attracted to the colors and scents of flowers in their search for nectar. While we see the blossoms as primarily white, bees can detect colors and patterns that are invisible to humans due to their ability to see ultraviolet (UV) light. Bees are able to find nectar with ease due to their superpower eyesight.

As bees travel from plant to plant tasting the nectar, pollen grains stick to the fur-like texture on their legs. When they drop that pollen off inside another blossom, it starts the process of pollination. The pollen transfers to a sticky surface inside the flower blossom called the stigma. Pollen contains DNA that travels down the tube of the stigma and combines with a tiny egg that will grow into a fruit.

CREATE A SKETCH THAT SHOWS BEES POLLINATING BLOSSOMS ON AN APPLE TREE.



PRESENT your art and explain your recommendations for increasing the number of bees buzzing around the orchard. Share information from your research about what apple trees need at each stage of the fruit's development, why pollinators are so important, and your ideas for helping pollinators flourish.



THINKING SHEET
Created in collaboration with Mott's



©2023 Crayola

MOTT'S is a registered trademark of Mott's LLP.