

Earth Day – Spring 2019



Monday, April 22, 2019

Student Reading Council Meeting

<http://www.eiu.edu/~reading>

Bee Dance by Rick Chrustowski

DIY Bee Hotel



<https://2pawsdesigns.com/diy-bee-hotel-tutorial/>

Pollen Transfer



<https://static1.squarespace.com/static/569ec99b841abaccb7c7e74c/t/5c40cd72c2241be99357009c/1547750797099/Bee+and+Pollinator+Activities+for+Kids.pdf>

Compost Stew An A to Z Recipe for the Earth

by Mary McKenna Siddals and Illustrated by Ashley Wolff

Compost Stew: An A to Z Recipe for the Earth

<https://kidsgardening.org/wp-content/uploads/2016/12/BooksinBloom-lessons-sample-compoststew.pdf>

Composting Lesson Resources and Videos - Life Lab

<https://www.lifelab.org/composting/composting-curriculum/>

Compost: A Scientific Investigation

<https://www.calacademy.org/educators/lesson-plans/compost-a-scientific-investigation>

Eco Spaces Education: Compost Stew I

<http://www.ecospacesed.org/resource/compost-stew-i/>

Plastic Bag by Miranda Paul Illustrated by Elizabeth Zunon

How to Recycle Plastic Bags into Purses: Isatou Ceesay - Njau, Gambia
<https://www.youtube.com/watch?v=1zZw7yrI22M>

After listening to the story “One Plastic Bag”, the students would be able to watch this video and make their own purses/bags out of old plastic bags that are going to be thrown in the garbage. Students will understand after reading the story that even an action you believe is so small (picking up plastic bags), can have a huge impact on the community we live in and our environment

From Plastic Bag to Jump Rope

In *One Plastic Bag: Isatou Ceesay and the Recycling Women of the Gambia*, Isatou Ceesay turns old plastic bags into new purses. You can turn old bags into something new too! Follow these directions to make a jump rope.

Materials:

plastic bags
scissors
duct tape

1. Choose a plastic bag. Cut open the bottom and one side of the bag. When you are done, you will have a flat sheet of plastic.
2. Cut the plastic into 1-inch (2.5-centimeter) strips.
3. Tie the ends of the strips together to create one long strip of plastic. The long strip should go from the floor to your chin twice. Make twelve long strips.
4. Take the ends of all twelve strips, and tape them to the top of a table.
5. Divide the twelve strips into three groups. Each group should have four strips. Use the three groups to make one thick braid.
6. When the braid is done, cover the end with duct tape. That's your jump rope handle.
7. Take the other end of the rope off the table. Wrap this end in duct tape to make the other handle. You've made a jump rope!

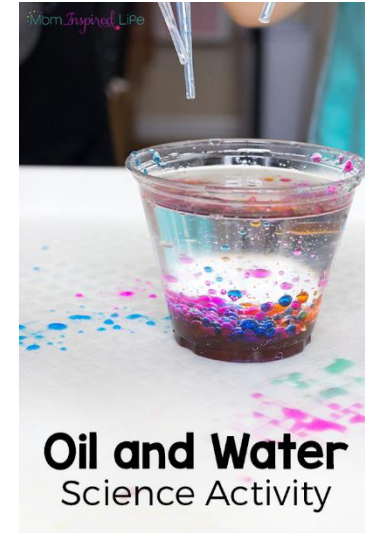
Isatou sold her purses to other people. She created goods. When you braided the jump rope, you made a good too!

Pretend you are selling jump ropes in your town. How will you tell people you are selling jump ropes? How will you get them to buy one? Make a poster to sell your jump rope. Then write a five-sentence paragraph that tells three reasons people should buy your jump rope.

All the water in the world by George Ella Lyon and Illustrated by Katherine Tillotson

Oil in Water Experiment

<https://funlearningforkids.com/oil-water-science-exploration/>



Water Pollution Experiment

<https://jdaniel4smom.com/2017/01/water-pollution-experiments-kids.html>



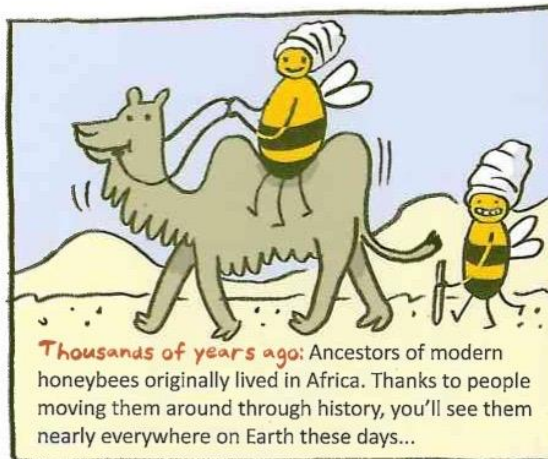
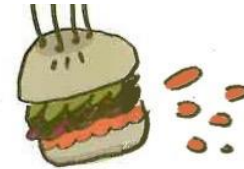
Hey! Not Your Typical Book About the Environment

by Elin Kelsey & Illustrated by Clayton Hanmer

YOUR BURGER AND WORLD PEACE

What kind of super insect fills your tummy and could make war zones safer?

You won't bee-lieve the answer!



Thousands of years ago: Ancestors of modern honeybees originally lived in Africa. Thanks to people moving them around through history, you'll see them nearly everywhere on Earth these days...



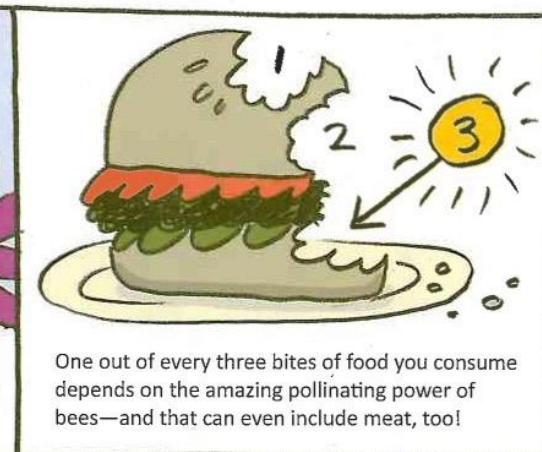
Today: ...including in your favorite park, ruining your nice picnic. Hey!



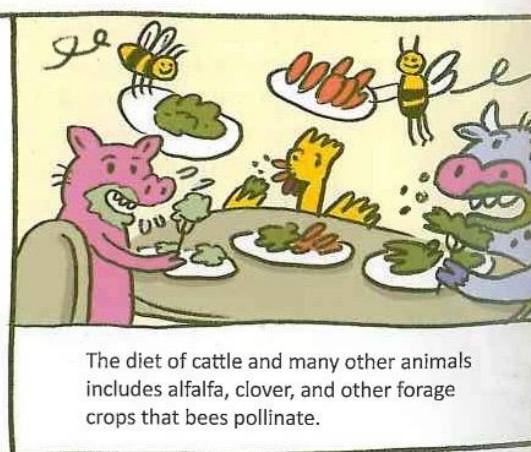
But hang on a sec. Without these winged wonders, the chocolate in those chocolate chip cookies and most of your picnic would vanish. No kidding.



Bees are pollinators. They carry a flower's male pollen to the female parts of other flowers. Without pollination, new flowering plants could not grow.



One out of every three bites of food you consume depends on the amazing pollinating power of bees—and that can even include meat, too!



The diet of cattle and many other animals includes alfalfa, clover, and other forage crops that bees pollinate.



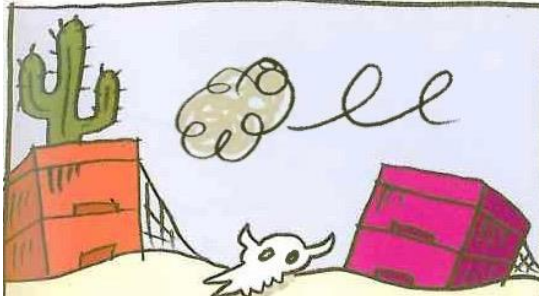
Plus some bees also make honey, which humans (and bears) love!



But bees do more than tend the garden. A few lucky ones are training to be peacekeepers, too!



In countries recovering from war, like Croatia, scientists have trained bees to use their amazing sense of smell to find explosives, bombs, and landmines that are preventing people from farming again.



A few years ago: Beekeepers across the United States, Canada, Australia, China, Brazil, and Europe report that millions of worker bees simply disappeared. Vibrant colonies become bee ghost towns.



What is killing the bees?
It's a mystery looking for an answer.



Some researchers feel that mite parasites have grown resistant to pesticides and are infesting bees, making bees more likely to get sick from viruses or bacteria.



Other scientists think certain chemicals used to grow food or green lawns harm the bees' memories—they can't find their way back to their hives and get lost.



Help out by planting bee-friendly gardens and leaving dead tree stumps where bees build hives. Find a list of local plants that bees love online or at a nursery.



The bees you help today will keep food on your table. Live on, you striped superheroes!

The Case of the Vanishing Honeybees: A Scientific Mystery by Sandra Markle



Author's Note

No movie about tracking down killers could be more exciting than this true story. It was thrilling to search out and interview scientists who are working on this case. One of my favorite moments was talking to Gloria DeGrandi-Hoffman and hearing how excited and hopeful she was about her work. She explained how new technologies are opening up new research possibilities that could help stop CCD. Then I talked to beekeepers and became caught up in the very personal side of the story of the vanishing honeybees. Like any farmer with livestock, beekeepers care about the bees they tend. They're crushed by losing so many in a bad year. The problem is, even in a good year, honeybees are still dying. Colonies—both those tended by beekeepers and those in the wild—remain at risk of collapsing. Perhaps, one day, you'll become the science detective who finally makes the world safe for honeybees. That will also make it a healthier place for all of us.

Honeybees Are Amazing!

Scientists believe honeybees have been at work pollinating Earth's plants for over 30 million years. In fact, honey has been found in ancient Egyptian tombs. You may be amazed to learn it's still safe to eat. That's because honey contains natural preservatives that prevent bacteria from growing in it. Check out some other incredible facts about honeybees.

- Honeybees have two "stomachs." One digests food, and one holds nectar while they forage.
- Honeybee larvae don't give off wastes. So they can grow up inside a wax cell on a puddle of food and not get it dirty.
- Honeybees perform special movements called dances to let other workers know how far and what direction to fly to find food. They can give directions to supplies within about 500 feet (152 meters) of the hive.
- Honeybees produce pheromones. This lets worker bees guard the hive entrance. Any arriving bee that doesn't have the pheromone of a hive mate could be a honey thief and is attacked.
- Bees produce wax, and without any training or blueprints, bees build perfect six-sided tubelike cells. Bees also slightly angle the cells up so honey and pollen won't fall out.

Help Your Local Honeybees

Here are some things you can do that will make a big difference to your local honeybees.

- Buy local honey. That helps local beekeepers so they're able to maintain their bee colonies in your community.
- Plant with honeybees in mind. If your family plants a garden or flowerpots, choose plants whose flowers will supply bees with nectar and pollen. Check with your local plant nursery to find out what's best to plant in your area. In the United States, download the free pollinator-friendly planting guide for your area. It's available from the Pollinator Partnership (<http://pollinator.org/index.html>). Keep in mind that bees are especially attracted to blue, purple, and yellow flowers.
- Let weeds grow until their flowers are finished blooming. Bees benefit from having access to dandelions and clover. Even more important is to not use pesticides on grass and weeds.
- Encourage your school and local community to leave areas for plants around playgrounds and parking lots. You can also suggest they choose landscaping plants, even if they're only potted plants, with bees in mind.

Global Rescue Efforts

Check out these worldwide efforts to help honeybees. You and your family may want to join one of these or put one of these ideas into action in your community.

British Beekeepers Association Adopt a Beehive Project: In Britain, people are making donations to help support local beekeepers in their efforts to raise healthy bees. Those who join Adopt a Beehive receive a jar of honey, a pack of pollinator-friendly wildflower seeds to plant, information about honeybees, and regular updates on their hives.

Pollinator Week: This event isn't just for bees. It's a week to hold events supporting the good health of all the natural pollinators: bees, birds, butterflies, bats, and other insects, such as beetles. The U.S. Senate voted five years ago to make the last week in June National

Pollinator Week. Many states as well as Canada hold activities to encourage people to think globally and act locally to provide adequate sources of pollen and nectar for their community pollinators.

Trees for Bees: BeeAlive (<http://www.beealive.com/>), a company supplying royal jelly-based health supplements, is supporting customers and local communities in planting fruit trees. The company's immediate goal is for one million fruit trees. The company's goal is to establish a long-lasting source of pollen and nectar for honeybees.

Bibliography

Bee Books

Bee Dance (2015) by Rick Chrustowski

Brilliant Bees (2003) by Linda Glasser & Illustrated by Gay W. Holland

The Case of the Vanishing Honeybees: A Scientific Mystery (2014) by Sandra Markle

The Honey Bee's Hive: A Thriving City (2010) by Joyce Markovics

The Honeybee Man (2011) by Lela Nargi and Kyrsten Brooker

Compost Stew An A to Z Recipe for the Earth by Mary McKenna Siddals and Illustrated by Ashley Wolff

What Happens to Our Trash: Let's Read and Find Out-Science 2 (2016) by D. J. Ward & Paul Meisel

Other Books

The Curious Garden (2009) by Peter Brown

Get Down to Earth! What You Can Do to Stop Global Warming (2008) by Laurie David & Cambria Gordon

Eyes Wide Open: Going Behind the Environmental Headlines (2014) by Paul Fleischman

Hey! Not Your Typical Book About the Environment (2010) by Elin Kelsey & Illustrated by Clayton Hanmer

All the water in the world (2011) by George Ella Lyon and Illustrated by Katherine Tillotson

Compost Stew An A to Z Recipe for the Earth (2014) by Mary McKenna Siddals and Illustrated by Ashley Wolff

Plastic Bag (2015) by Miranda Paul Illustrated by Elizabeth Zunon

Websites

Earth Day 2019 - Protect Our Species

<https://www.earthday.org/campaigns/endangered-species/earthday2019/>

Conserve Energy Future – Be green. Stay Green. 25 Ways to Celebrate Earth Day

<https://www.conserve-energy-future.com/different-ways-to-celebrate-earth-day.php>

Doing Good Together – Celebrate Earth Day: Everyday Acts of Stewardship

<https://www.doinggoodtogether.org/bhf/celebrate-earth-day>

DIY Bee Hotel

<https://2pawsdesigns.com/diy-bee-hotel-tutorial/>

Pollen Transfer

<https://static1.squarespace.com/static/569ec99b841abaccb7c7e74c/t/5c40cd72c2241be99357009c/1547750797099/Bee+and+Pollinator+Activities+for+Kids.pdf>

How to Recycle Plastic Bags into Purses: Isatou Ceesay - Njau, Gambia

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