

NEW YORK STATE

CONSERVATIONIST

for
Kids!

Be an
Earth
Hero

help us protect
NY's Air, Water, and Land

NEW YORK STATE

CONSERVATIONIST

Kids!

IN THIS ISSUE;

Take action to help the earth each and every day by reducing plastic pollution, saving water, protecting native plants and animals, reducing wasted food, and keeping our air clean! No action is too small for an Earth Hero.



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You'll get six issues of the award-winning *Conservationist* magazine each year, plus *Conservationist for Kids* in the October, February and April issues.
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Everyone is the Solution to Plastic Pollution!

Do you see litter when you're playing outside? How much of this litter is plastic? We see plastic bags in trees, and food containers and soda bottles on the sides of the road and in parks. When it rains, this plastic litter can make its way to all types of waterbodies (streams, lakes, ponds, ocean) even if you don't live near any. Plastic pollution is a problem all over the world and can cause problems for wildlife, the environment, and people.

Why is plastic pollution bad?

Plastic is a wondrous material that can be used for many different things! However, plastic can stay in the environment for many years. Some plastic never really goes away, and scientists are still studying how long it takes to break down.

How did it get there?

Plastic pollution happens when litter is created – for example: when people throw trash on the ground and out of their car windows, when they don't pay attention to overflowing garbage and recycling bins on the street, or when they litter plastic items in the water while boating or fishing.

Check out the animals below to learn about different types of plastic pollution and what you can do to help. **Plastic pollution is preventable with your help!**

FUN FACT

Do you see how I look like a jellyfish? This can be confusing to marine life like sea turtles that eat jellyfish.

Did you know that sea turtles can be found near the Long Island coast at certain times of the year?

Sometimes I eat plastic bags because they look like jellyfish, and get sick.

Can you imagine trying to swim through this? Recycle your drink bottles or fill a reusable bottle with your favorite drink!

What do you use that's made of plastic?

CHOOSE REUSABLE BAGS

Check your local recycling program to see what plastic can be recycled.

New York's bottle recycling laws help keep thousands of plastic bottles out of landfills.

Tie balloons down at parties and don't release them! I could become tangled in balloon string or mistake balloons for food. Use fun alternatives like bubbles or bells instead.

When plastic food tubs and other plastic containers become litter, other animals and I could get our heads or bodies stuck trying to get food out! Choose reusable containers to reduce litter.

Conserve and Protect our Water

Every time we turn on a faucet, clean, drinkable water comes out, so it's easy to take it for granted. But did you know that less than 1% of the water on Earth can be used by people? The rest is salt water or frozen! The average person uses 50 gallons of water a day, but you and your family can take easy steps throughout the day to save water.

Use Water Wisely, Don't Waste It



Turn off the water while brushing your teeth and save 8 gallons a day!



Take shorter showers or fill the bathtub only part way. Showers use less water than baths.



Water gardens and yards first thing in the morning when it's cooler rather than the hottest part of the day. And don't overwater.



Use a dishwasher instead of washing dishes by hand. Scrape dishes instead of rinsing before putting them in the dishwasher. Only do full loads of dishes and laundry.



New York takes hundreds of samples from lakes, ponds, streams, and rivers each year to check for harmful contamination.

Water Pollution

In addition to saving water, it's also important to help keep our water clean. Even things we do in our yard can leave behind materials that get washed into lakes and rivers, and pollute them.

Don't litter.

Clean up pet waste.

Volunteer for a stream cleanup



A winning poster from DEC's 2018 Conserve and Protect Our Water Poster Contest, by Catherine Nolan from Cooperstown, NY.

These are some simple steps you can take to help:

Be a Leak Detective!



Be a Leak Detective!



Leaking toilets can waste about 200 gallons of water a day, so fixing a toilet leak is a great way to save water. Ask your parents to help you test for leaks by placing a drop of food coloring in the toilet tank. If the color shows up in the bowl without flushing, you have a leak!

Supporting Native Plants and Animals

Invasive plants are **non-native** species that can overtake and push out native plants because of advantages like a lack of predators and diseases, and faster growth rates. They are "**bullies**" that threaten the **diversity** of our forests and fields, but did you know they can cause even more problems than that?



Most of New York's moths and butterflies rely on native plants for food. Without the right food, species like monarch, Karner blue, and tiger swallowtail butterflies cannot grow and reproduce, so populations of these important pollinators would decrease or completely disappear.



Almost all of our songbirds rely on insects to raise their young, so as insect populations decrease, so do they. Chickadees, for example, feed their babies 350-570 caterpillars a day. That's 6,000-9,000 insects per **clutch!**

Non-native – originating from somewhere else and introduced to a new area (European beech is native in Europe, but not native in the United States)

Diversity – many different types of something, like trees (maple, oak, birch, beech, willow, pines, etc.)

Clutch – the number of young birds in a nest

The good news is there are simple things you can do to support native plants and animals!

Put out a mealworm feeder for birds. Whether it's to help birds feed their babies in the spring or provide a boost to those that brave the cold winter weather, a mealworm feeder can be a real "tweet!"



Plant native trees, shrubs and flowers. Native plants are used to the local climate and soils, so other than keeping invasive plants from taking over, they don't need the fertilizers, pesticides and extra care that non-native plants often require to keep them healthy.

BUG someone!

Share what you've learned about pollinators and native plants with your family and friends. What's your favorite fun fact you've learned?

NYSDEC's Invasive species team investigates hundreds of reported invasive species each year and is leading the fight to keep out non-native species and protect New York's plants and wildlife.

Use plants that support bees and other pollinators. Some native plants are better than others, so decide what bug buddies you want to bring to your yard and then do a little research on what they eat. Oak trees top the list of insect-friendly plants, supporting nearly 400 different species in New York alone.

Reducing Wasted Food

Have you ever thrown away an apple or banana that was slightly bruised? Or maybe you didn't finish your dinner and tossed it in the garbage? This is wasted food- food that was perfectly good to eat, but was thrown away. When we throw away food, it's not just the food we waste, but also the resources that went into getting that food to us. For example, the water used to grow it, the work to harvest or cook it, and the money used to purchase it.

Families in the United States throw away approximately 25% of the food and beverages they buy. Imagine your family going to the grocery store, buying 4 bags of food and leaving one behind! Become a wasted food warrior and save food!



What can I do to fight wasted food?

(See how many you can do. Check them off as you go!)

- Don't take food I know I won't eat
- Eat all of the food on my plate
- Eat the leftovers in my refrigerator
- Help my parent(s)/guardian(s) plan my lunches and dinners
- Help my parent(s)/guardian(s) make a grocery list
- Volunteer with a school club, scout troop or my family at a local food pantry or soup kitchen



Wasted Food



Wasted food is food that is still good to eat, but is not eaten and is then thrown away.

Examples: An apple with a bruise, refrigerated leftovers from last night's dinner, or food you simply didn't want to eat.

vs.

Food Scraps



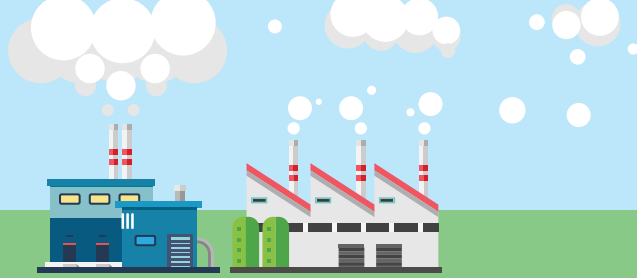
Food scraps are inedible food items or food that cannot be eaten.

Examples: Banana peels, egg shells, or moldy bread.



Not all of the food that you usually throw away can be eaten, so what do you do with this food? You can compost it! Composting your food scraps at home in your yard or in an indoor worm bin makes a nutrient rich soil we call compost. Add compost to the soil in your garden to help it grow.

Protect Our Air!



The air we breathe today is cleaner than the air our parents and grandparents were breathing when they were children. But, we still need to do our part to keep it clean. Any time you can reduce the amount of energy you use, you are helping to keep the air we breathe clean. Air pollution comes from many different sources, such as cars, lawnmowers, power plants, and even things in your home. Power plants burn fuel to create electricity that power lights and electronics in many of our homes, schools, and businesses like grocery stores. Some people burn fuel in their homes to heat them in the winter, which makes air pollution.

Polluted air is bad for you, your pets, wildlife and the environment. Air pollution can trigger asthma attacks, make you cough, and pollute both the water and the land. By making small changes to your daily activity you can help keep the air clean for all of us.

DEC has air monitoring stations across NY to monitor NY's air quality.


Here are some ways you can save energy to keep our air clean:



Turn the lights off when you leave a room.



Ask an adult if you can walk or ride your bike instead of riding in a car.



Play outside, make a craft, or read a book without using electronics.



Carpool with friends or take the bus.



Turn off the TV, computer, or tablet when you are done using it.



Ask to turn the heat down a little and put on a cozy sweater or a fuzzy blanket.



Recycle paper, plastics, metal, and glass so they can be made into new things.

Become an Earth Hero!

Take this
one-week
challenge



Now that you've learned lots of ways to help the earth, it's time to swing into action! Become an Earth Hero by taking the actions you have learned about and tell your friends and family what they can do to help, too.

To become an
Earth Hero:

Take at
least 10
overall
actions

or

Take at least
one action
in each of
the five
categories



Cutout
Badge

Reduce Plastic Pollution

- Keep track of plastic packaging at home and brainstorm with your parents about how to create less waste.
- Bring a reusable water bottle with you wherever you go.
- Talk to your friends and teachers about plastic pollution and think of ways to reduce plastic packaging and litter at school.

Save Water

- Turn off the water while brushing your teeth.
- Shower instead of taking a bath, or take shorter showers.
- Get on the case! Be a leak detective and discover if the toilets in your home are leaking.

Support Native Plants and Animals

- Put out a mealworm feeder for the birds.
- "Bug" your parents! Talk with them about choosing yard plants that are native and support pollinators.

Reduce Food Waste

- Don't take food you know you won't eat and eat everything on your plate.
- Eat leftovers before making something new.
- Help your parents plan meals.
- Volunteer with a school or community group at a local soup kitchen.

Protect Our Air

- Turn off the lights when you leave a room.
- Turn off the computer or tablet when you're done using it.
- Turn off the TV when you're done watching it.
- Talk to your parents about turning down the heat a little. Put on a sweater if you're chilly.
- Recycle paper, plastics, metal, and glass so they can be made into new things.

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Conservationist for Kids **Supplement for Classroom Teachers – Be an Earth Hero!** **April 2019**

Take Action, Be an Earth Hero!

In this issue of *Conservationist for Kids*, we take a look at a variety of ways that humans impact the environment, and actions that they can take to help improve it. From conserving water and preventing air pollution to reducing plastic use and wasted food, there are many steps that individuals can take to lessen their impact and live a more sustainable lifestyle. Many of these can be done in the classroom, and students can also implement these practices at home. Each student, teacher and parent can lead by example because every action, no matter how large or small, can make a difference. Throughout this issue students will become empowered to do their part to make a positive change.

This Issue’s “Outside Page”

Talk to your students about how they can become Earth Heroes and let them know how to go through and take the actions with their parents/guardians. You can also help the students keep track of their actions using this page. Once you have students who have become Earth Heroes, send us a photo of them with their Earth Hero badges. Photos may be featured on DEC’s social media (Twitter, Facebook, Instagram) or Flickr accounts, helping to inspire other students and classes around the State to become Earth Heroes as well. We’re really looking forward to seeing classrooms full of Earth Heroes from all across New York!

If you want to share your photo with us, make sure that the students have had their parents/guardians sign DEC’s model photo release form, available on our website at www.dec.ny.gov/docs/lands_forests_pdf/modelconsent.pdf.

Supplemental Activities for the Classroom

Check out the “Trash Bass”

The Hudson River Research Reserve and Hudson River Estuary Program have partnered with Clearwater and the NOAA Marine Debris Program to develop student curriculum about coastal debris and reducing plastic waste. Contact Sarah Mount at sarah.mount@dec.ny.gov for more information. You can also check out our "Trash Bass" at this DEC Youtube link: www.youtube.com/watch?v=z1bFbc9oL74. To find additional teacher resources related to the Hudson River Estuary Program visit www.dec.ny.gov/lands/5102.html.

Find Treasure in Your Trash

Read "Treasures from Trash" from the Winter 2017 *Conservationist for Kids* for ideas on how to create upcycled crafts from items easily found in your classroom's recycling bin. The article can be found on DEC's website at www.dec.ny.gov/education/108755.html.

Reducing Food Waste

The Extraordinary Life and Times of Strawberry

<https://www.youtube.com/watch?v=WREXBUZBrS8&t=7s>. Follow the journey of a strawberry from the farm to the refrigerator to understand all that it takes to bring your food to you. Did you know that 40% of our food ends up wasted? Wasted food is the single largest contributor to landfills in the US - not to mention that it wastes water, labor, fuel, money, & love!

Food Waste Warrior Toolkit: www.worldwildlife.org/teaching-resources/toolkits/food-waste-warrior-toolkit. The food waste warrior toolkit provides lessons, activities and resources to share how what we eat and what we throw away impacts our planet by creating a classroom in the cafeteria.

Food Sharing Tables: A sharing table is a place where students can leave unopened food and drinks that they choose not to eat or drink. This provides other students an opportunity to take these items at no costs, keeping food out of the landfill, in the schools and into the mouths of students who are hungry.

- NYS DOH Sharing Table Guidance: www.cn.nysed.gov/common/cn/files/sharetabledoh.pdf
- USDA Sharing Table Guidance: www.fns.usda.gov/use-share-tables-child-nutrition-programs

K-12 Food Rescue: www.foodrescue.net. This program gives schools tools to track the impacts of food waste and resources for preventing uneaten food from reaching landfills.

NYS Food Recovery Campaign Pledge to Fight Wasted Food:

<https://goo.gl/forms/BXmv7ysRdMMKXj7y2> Wasting Food Wastes Everything! Together we can take actions that will reduce the amount of wasted food in NYS. Join us in taking the pledge!

Teaching Children About Air Pollution

Our goal is to help you teach your students about "Clean Air" topics including air pollution, climate change, and how to reduce air pollution. It is also important for students to understand that they can make a difference. A variety of resources can be found on DEC's website at www.dec.ny.gov/education/52185.html.

Saving Water Makes Good Sense

DEC has a variety of hints and suggestions for conserving water. Although many of these are geared to the general public, many of them can also be implemented in your classroom or school. Learn more at www.dec.ny.gov/lands/5009.html. Additional resources can be found on the "Green Living" section of DEC's website, www.dec.ny.gov/public/337.html and the "Green Schools" webpage, www.dec.ny.gov/education/41746.html.

Conservationist for Kids and an accompanying teacher supplement are distributed free of charge to 4th-grade classes throughout New York State three times per school year (fall, winter and spring). If you would like to be added to or removed from the distribution list, need to update information, or if you have questions or comments, please e-mail the editor at KidsConservationist@dec.ny.gov or call 518-402-8047. Limited quantities of some back issues are also available on request. The full archives can be found online at www.dec.ny.gov/education/100637.html