

Climate Education Week Toolkit

END PLASTIC POLLUTION
EARTH DAY 2018





THIS YEAR'S CLIMATE EDUCATION WEEK THEME: END PLASTIC POLLUTION

Education focusing on environmental issues is paramount to a sustainable future led by environmentally literate citizens. By equipping students with knowledge, skills, and motivation, they will be ready and able to tackle complex topics such as climate change, natural resource sustainability, and a prosperous global economy.

This resource includes a wealth of information including how you can incorporate lessons on plastic pollution into your curriculum during Climate Education Week. The variety of age appropriate activities provides a broad overview of the environmental issues surrounding the production, use, and disposal of plastic products. By understanding the complete life cycle of plastic products we use every day, we can begin to understand the impacts those products have on our climate, our environment, and our bodies.

PLASTICS IN OUR EVERYDAY LIVES



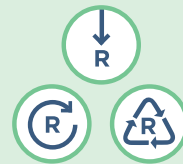
16 APRIL 2018
Monday

MARINE ECOSYSTEMS



17 APRIL 2018
Tuesday

SOLID WASTE



18 APRIL 2018
Wednesday

HUMAN HEALTH



19 APRIL 2018
Thursday

WHAT CAN YOU DO?



20 APRIL 2018
Friday

EARTH DAY



22 APRIL 2018
Sunday




Why Plastics?

From poisoning and injuring marine life to disrupting human hormones, from littering our beaches and landscapes to clogging our waste streams and landfills, the exponential growth of plastics is now threatening the survival of our planet. In response, Earth Day Network (EDN) is positioning Earth Day 2018 to be a pivotal moment in fundamentally changing the human attitude and behavior concerning plastics and catalyzing a significant reduction in plastic pollution.

After decades of producing trillions of oil-based plastic items, the negative consequences are startling. Plastic pollution is now recognized as a hazard to public health and the human body. Chemicals leached from plastics used in food/beverage storage are harmful to human health and have been linked to problems such as chromosomal and reproductive system abnormalities, impaired brain and neurological functions, cancer, cardiovascular system damage, adult-onset diabetes, early puberty, obesity and resistance to chemotherapy.

Plastics do not degrade, or breakdown, like other types of waste. When plastic products end up in the landfill, they will not decompose, but could potentially leach chemicals into the soil or groundwater. In addition to what accumulates in landfills, billions of tons of plastics are littered on the ground, and in rivers, lakes, and oceans. Single use plastics, such as bottles, caps, straws, grocery bags, utensils, and cigarette butts are causing a substantial share of the plastic pollution problem. Single-use-plastics are particularly troublesome because they are often small, light enough to float in the wind and water, and are produced in massive amounts.

Plastics are also linked to climate change primarily because they are made from petroleum. If we are to move away from an economy based on fossil fuels, we need to reduce plastic production. As the oil industry and countries that produce oil are under pressure from the expansion of clean energy, they are looking for an outlet to sustain their business. Plastic production is a key target.



For more information on plastic pollution and what we can do as individuals to make an impact, please visit Earth Day Network at:

earthday.org/yourjourney2018

How to Use This Resource

This Toolkit provides a daily focus for Climate Education Week related to the 2018 theme of Ending Plastic Pollution. Each day provides three activity suggestions for the three academic levels leading the students from awareness to action.

The first activity is meant to provide foundational information about the day's topic. The second activity provides opportunities for students to use higher order thinking skills and synthesize the information. The third activity offers suggestions for age-appropriate actions the students can take to address the issue at hand.

We understand that there is not always enough time to do all the activities every day for a week. However, we wanted to provide a wealth of resources for you to incorporate and utilize when it best fits into your curriculum at any point in the year.

In addition to the activities per day, please explore the Appendices at the end of this document. Each Appendix includes abundant resources for you and your students to explore which highlight green school resources, youth leaders, and additional curriculum resources all focusing on the theme of ending plastic pollution.





16 APRIL 2018
Monday

Plastics in Our Everyday Lives

HOW MUCH DO WE USE, AND WHY?!

For the first day, help students realize how much plastic we use every day. Take a look around the classroom, and have students think about their homes. Record a list on the board of all the ways we use plastic. Revisit this list at the end of the day or week to brainstorm ideas of how to make this list shorter. If you want an easy tool to help you track your progress to reduce plastic, visit earthday.org/yourjourney2018 and check out Step 2: Plastics Pollution Footprint Calculator and Personal Plastic Plan.

K-5

1. Plastics are everywhere!

Here are two videos that help explain how plastic is created. Some younger students may need help with some of the terminology that is used.

- [Where do plastics come from?](#)
- [How plastic is recycled](#)

2. [Discussion about Storm Drains](#)

Show this short Teacher Tube video made by middle school students that explains how plastic pollution travels through storm drains.

Have students give their own descriptions of what storm drains are designed to do. Pose questions that will help them formulate ideas on the function of storm drains and help them understand the connection that exists between storm drains to streams, rivers, and eventually the ocean. We suggest using maps to demonstrate the path of your watershed. Where does your water come from? Where does it go?

3. [The Storm Drain Connection](#)

Page 16 from Save Our Seas

Get students outside to visit the storm drains around your school or community and do a labeling activity.

Can you locate storm drains on your school campus? Is there plastic litter near the storm drain that you and your students have located? Can you look into the drain and see any trash? Have your students consider how the trash got there and what would happen to it over time, especially if it rained.

Many places have logos or emblems on their storm drains to tell people where it goes. For an extension activity, you can have your students design their own storm drain art sharing a message about preventing plastic pollution.



1. The reality of plastic

After brainstorming the list of all the ways we use plastics in our daily life, show this video sharing the realities of the life cycle of many of our plastic products. While we may think we are doing good by throwing our bottles and bags in the recycle bin, what is actually happening to those items after they leave our curb?

2. Discussion about Storm Drains

What is the path of your water? We suggest using maps to demonstrate the route water takes in your watershed. Where does your water come from? Where does it go?

3. Storm Drain Labeling Project

This is a sample activity from a town in North Carolina. If you were to design an educational storm drain message, what would it look like? Hold a contest for storm drain art with your students. Ask local officials where you live if they would be willing to add the student art to local storm drains in the community!



1. The reality of plastic

After brainstorming the list of all the ways we use plastics in our daily life, show [this video](#) (and if time allows, [this video](#) also) sharing the realities of the life cycle of many of our plastic products. While many of us think we are doing good by throwing our bottles and bags in the recycle bin, what is actually happening to those items after they leave our curb?

2. Classroom discussion

Ask students to discuss in groups how they could lessen their use of plastics in their everyday life. Are some already trying? What works? What is most difficult to give up?

After the discussion show [this 12-minute video](#) about Boyan Slat, a young adult working to fix the plastic pollution problem.

Revisit the discussion before the video and see how this role model inspires us to do more to reduce plastics in everyday life.

3. Identifying Plastics

Page 42 from 5 Gyres

This hands-on, science-based activity will allow students to learn about the different types of plastic and identifying them through experimentation.

[Plan a "S.T.O.P." \(Students Take on Plastics\) Event in Your School](#)

This resource from the Green Schools Alliance provides information on how students can host an event at school to advocate for the reduction of plastics on campus. Resources include sample agendas, messaging, and student leadership training.

Green Career & Technology Spotlight

*Each day we will introduce you to an individual or organization doing their part to **End Plastic Pollution!** There are many career options which utilize a wide range of developing technologies to combat this and other environmental problems. Challenge your students to think of other careers related to preventing plastic pollution and have a career showcase day!*

Jeremy Rowsell is a plastic pollution pioneer who in his 'On Wings of Waste' flight used plastic waste from the ocean as fuel for the engines! [Learn more about him and his journey here.](#)





17 APRIL 2018
Tuesday

Marine Ecosystems

IT ALL ENDS UP IN THE OCEAN...

On the second day inform students about the dangers of plastic pollution on the marine ecosystem via hands on activities and readings. Encourage students to think critically about the effects that their plastic usage has on the environment, especially if not disposed of correctly.

K-5

1. Literary Connections

- [Follow the Water from Brook to Ocean](#) by Arthur Dursos
- [All the Way to the Ocean](#) by Joel Harper
- [A Fish's Wish](#) (online book from South Carolina Department of Health and Environmental Control)
- Or watch this 5-minute video from PBS: [How much plastic is in the Ocean?](#)

2. Why would animals eat plastic?

Now that the students have a strong understanding of what plastics are and why they are found in waterways and the oceans, ask students why they think animals may eat plastic. Is it on purpose? Or by accident?

One of the main food sources for sea turtles is jellyfish. Often sea turtles confuse plastic items for food. Show students pictures of plastic bags floating in water and jellyfish, can they tell the difference?

Check out [this online magazine](#) from Scholastic News: Plastic Bag or Jellyfish?

3. Marine Debris: It can be Deadly

Page 5 from Save Our Seas

Teach students about the dangers of plastic pollution as it relates to the health of various marine animals. This activity includes a game and worksheets.

Have the class brainstorm solutions to the marine debris problem. Highlight actions individuals can take.



1. Ocean Adventures with Jean-Michel Cousteau

Watch this [4-minute PBS video](#) about Cousteau and his team sailing to the Pacific Garbage Patch.

Plastic Ocean

Watch this [7.5-minute UN informational video](#) to provide background into the prevalence of plastics in our oceans. (Preview video to make sure content about sea birds is not too graphic for your students.)

2. Classroom Discussion

- What are some of the items Jean-Michel Cousteau found on the beach on Laysan Island and where did these items come from?
- How does garbage wind up on the beaches of the Northwestern Hawaiian Islands?
- What is the Great Pacific Garbage Patch?
- What is a gyre?
- How much of the debris found in the ocean comes from land?
- Why do birds ingest plastic and how are they affected by the plastic they ingest?

You Are What You Eat Activity

Page 59 from 5Gyres

This activity teaches students about the impacts of plastics on a variety of marine species.

3. Break Up with Plastics

Think about the list of plastic items brainstormed at the beginning of the first day. Ask the class to come up with ways to reduce (or ideally eliminate) the use of single-use plastics.

Use this link that provides a variety of ways to reduce plastic waste in your home to encourage students to take action. To inspire motivation, break the class up into teams and have incentives for the team that comes up with the most ideas or the most inventive ideas.



1. Plastic in the Pacific

This [10-minute video from KQED Science](#) details the sources and consequences of the amount of plastic pollution found in the Pacific Ocean.

SciShow About Plastics

This [4-minute video](#) talks about strategies for cleaning up plastic pollution in the ocean.

2. Classroom Discussion

- Do you think there should be a statewide ban on polystyrene and other plastic items? Why or why not?
- What are some things we can do in our daily lives to help prevent plastic pollution?
- Where does the plastic debris in our oceans come from? How does it impact our environment?
- Why is it so difficult to clean up plastic marine debris?

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Need help with ideas?

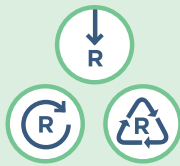
- [Visit this story.](#)
- Read [7 Ways to Reduce Ocean Plastic Pollution Today.](#)

Green Career & Technology Spotlight

5Gyres is an organization working toward, “More Ocean, Less Plastic.” [Read about their incredible staff here.](#)



Marine debris litters a beach on Laysan Island in the Hawaiian Islands National Wildlife Refuge, where it washed ashore. (Susan White/USFWS)



18 APRIL 2018
Wednesday

Solid Waste

REDUCE! THEN REUSE. THEN RECYCLE.

This third day will focus on teaching students about the three R's—reduce, reuse, recycle, and the importance of first trying to reduce our consumption, then reuse when possible, and then as a last resort, recycle. Conduct activities about sorting and identifying recyclables to help students understand what each number on plastic containers means. Challenge students to take recycling and waste reduction into their own hands by having a low waste lunch day, increasing recycling efforts on campus, or starting a composting program in their school.

K-5

1. [The 3 R's by Jack Johnson](#)

This video has the lyrics to the song so students can learn a fun way to remember the 3 R's.

[Literary Connections](#)

This link provides a search from Scholastic that has a variety of options of books around the topic of Reduce, Reuse and Recycle.

2. [Plastics Investigations Unit](#)

Feed the Bin curriculum, Wake County, NC

Choose one or more of the activities from this resource that teaches students about the properties of plastics, what the numbers on the items mean, and how we can reduce plastic use.

3. [Reduce First!](#) [Low Waste Lunch Day](#)

Lesson 2 from Morningside Center

Teach students about simple ways to reduce waste at home. Challenge your students to a low waste lunch day one day this week; teach them about simple ways to produce less waste for this day using reusable containers for foods and a reusable water bottle. Set up a competition between classes to see who can produce the least amount of waste from each day's lunch over the course of a week, month, or semester!

6-8

1. [TED talk: The Seas of Plastic](#)

This 7-minute TED Talk is from Captain Charles Moore, the man who discovered the Pacific Garbage Patch

[Are you eating Plastic for dinner?](#)

This 4.5-minute video from National Geographic shows the connection between plastic waste in our seas and the food we eat.



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Teach students about simple ways to reduce waste at home. Challenge your students to a low waste lunch day one day this week; teach them about simple ways to produce less waste for this day-- using reusable containers for foods and a reusable water bottle. Set up a competition between classes to see who can produce the least amount of waste from each day's lunch over the course of a week, month, or semester!

[Composting: Reduce Waste, Recycle, and Teach Green Habits in One Fell Swoop](#)

Using this article and the Keene Valley, NY school system example to start a composting system in your own classroom and then possibly in your school.

9-12

1. [TED talk: The Seas of Plastic](#)

This 7-minute TED Talk is from Captain Charles Moore, the man who discovered the Pacific Garbage Patch.

[Recycling Process](#)

This animated presentation shows how scrap metal is typically received, shredded, and separated into ferrous metal, nonferrous metal, and non-metallic materials such as plastic and foam.

2. [Test your recycling IQ](#)

[Buzzfeed Link 1](#)

[Buzzfeed Link 2](#)

Use both Buzzfeed links to learn first about your recycling IQ and subsequently trash decomposition knowledge. Take the quizzes together as a class, or assign as homework. You can use these quizzes as a pre and post assessment. Then have your students create their own quiz about recycling practices more specific to your school or community.

3. [Zero Waste?](#)

Watch this 5-minute video about a zero-waste village in Japan and then have a discussion as a class. Would your students be willing to do all that these people have to do to be zero waste? What would it take for your classroom, your school, or your community to be zero waste? Who would need to be involved? Have students work in pairs or in groups to come up with a zero-waste plan.

Green Career & Technology Spotlight

Sarah Kaeck was looking for ways to reduce plastic in her home and keeping her food fresh. [Learn about her story here.](#)





19 APRIL 2018
Thursday

Human Health

ARE WE AT RISK TOO?

Most of the information on plastic pollution revolves around the danger it poses to our oceans, wildlife, and our environment in general. But, what about us? Plastic pollution and some plastic products pose a danger to human health as well. If students are having a hard time letting go of their dependence on plastic, these lessons may show them why it is time to **End Plastic Pollution**.

K-5

1. No Litter Bugs!

Connections between human health and plastic pollution are harder for younger students. Some of the concepts are beyond their understanding and it is also important not to scare young students with ideas of contaminations and unsafe water. However, preventing littering (which is the source of much of the plastics in our waterways) is an easy and age-appropriate lesson for the younger environmental leaders. For those with advanced students, feel free to explore the activities in the 6-12th grade section.

Use these catchy sing-a-longs to remind kids not to litter:

[Song 1](#) and [Song 2](#)

Invite your students to write their own song, a poem, or create signs for the cafeteria to remind others to not litter and practice the 3 R's.

2. [Soils and Composting Explorations Unit](#)

Feed the Bin curriculum, Wake County, NC

Choose one or more lessons from this curriculum unit about composting. Composting our waste is a great way to practice "Reducing" as the first and most important of the Three R's. Composting can also be used for great science lessons about decomposition, the nutrient cycle, and can incorporate experiments seeing which items decompose at different rates, or what conditions are best for composting bins.

3. Start a campaign to stop littering on campus

After learning about what can be recycled or composted versus what needs to be thrown away, challenge your students to develop an anti-littering campaign at your school. [This website](#) has a wealth of resources to start a successful campaign!



6-8

9-12

1. [What is a microplastic?](#)

This short one-minute video will introduce students to microplastics and where they come from.

[Microplastics and Microbeads](#)

In addition to the microplastics from larger plastic pieces breaking down in our oceans, we are also adding to the problem with products such as face wash and toothpaste.

[Plastic Fibers](#)

This Time article and video on microplastics in drinking water provide a small glimpse into the prevalence of plastics, even in our drinking water.

2. [Perils of plastics: Risks to human health and the environment](#)

Lead a class discussion regarding the perils of microplastics and their effect on human and environmental health. Then start a dialogue about microbeads and their role in plastic pollution. This video adds more information of how microplastics can be harmful to human health. Discussion Questions:

- Did you know of the prevalence of microplastics in our household products and even in your drinking water? (if students are unaware, have them do an inventory for homework)
- How do these facts make you feel?
- What do you think can be done in your own life to help stop microplastic pollution?

3. [Just say NO to microplastics!](#)

Encourage students to reconsider their purchasing of products known to contain microplastics or microbeads. Use this link to find out which personal care products contain microplastics, organized by country.

This list is often overwhelming. There are products that we use every day, that you would never guess contain plastics. Challenge your students to create an awareness campaign for other students at the school. Students can create signage informing other students of the issue, create a campus pledge to stop purchasing these products, form a taskforce to request local stores stop carrying these products, partner with local water conservation organizations to host a community event to spread the message about microplastics. Empower students to design an idea that they are motivated to work toward.

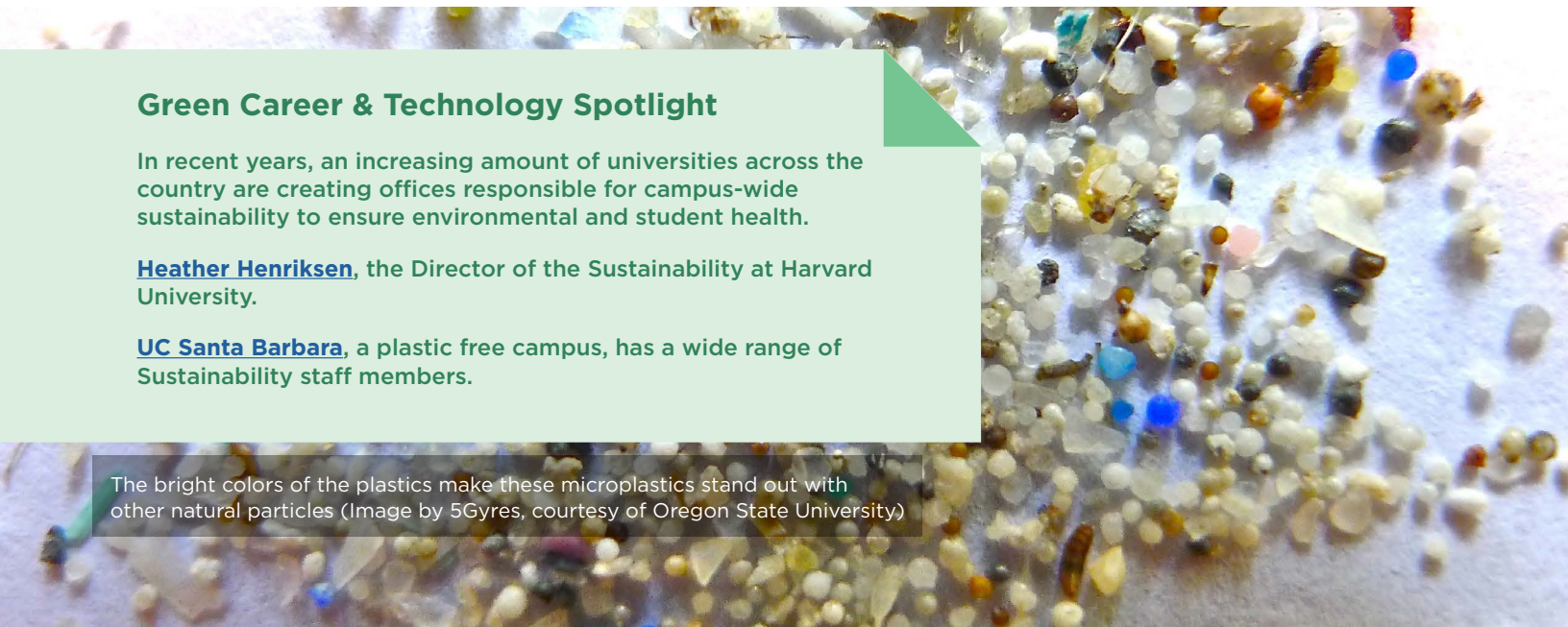
Green Career & Technology Spotlight

In recent years, an increasing amount of universities across the country are creating offices responsible for campus-wide sustainability to ensure environmental and student health.

[Heather Henriksen](#), the Director of the Sustainability at Harvard University.

[UC Santa Barbara](#), a plastic free campus, has a wide range of Sustainability staff members.

The bright colors of the plastics make these microplastics stand out with other natural particles (Image by 5Gyres, courtesy of Oregon State University)





20 APRIL 2018
Friday

What Can YOU do?

This day is an integration of the knowledge acquired from the past lessons on plastic pollution and encourages students to take specific steps to reduce their own plastic consumption and help solve the issue of plastic pollution in our environment. Though each previous day included action-based activities, this day aims to inspire more permanent change. Through the creation of a recycling program or environmental club at school, the use of plastic free classroom products, or participating in events such as Envirothon (an environmental science competition), students of all ages can have a profound impact on the problem of plastic pollution and ultimately the health of their environment and themselves.

Visit Appendix A for a wealth of information on how to make your school a green school year-round, not just during Climate Education Week!

Check out [this resource](#) that details the steps to make your campus plastic free.

K-5

Trash weight Challenge

Get students excited about reducing their trash by starting a classroom trash challenge or waste free lunch campaign! Design competitions with other classes, schools, or local businesses.

Track weight of your classroom trash and recyclables throughout the year and set a goal to achieve by the end of the semester. Incorporate math lessons on weight measurement, data tracking, and converting measurements.

[This North Dakota resource](#) provides a wealth of information about reducing plastic waste in your school.

6-8

The Real Cost

Activity 9: PLT's Southeastern Forests & Climate Change Module

Teach students about the concept of Life Cycle Assessment and the subsequent importance of the three R's, especially reducing of product consumption. The "Real Cost" of a product is much more than the price we pay at the counter. Visit the website and create a free account to download all activity resources.

[Start an Environmental Club at your School](#)

Use this link from the National Wildlife Federation to generate a plan to form an environmental club at your school.



Learn about product life cycle assessments and compete in Envirothon!

Life Cycle Assessment Debate

Activity 11 from PLT's Southeastern Forests and Climate Change Module
Use this activity to teach students about the cradle to grave life cycle of different products. What products are best for your school and why? Visit the website and create a free account to download all activity resources.

Envirothon

Start an Envirothon Team at your high school. Envirothon is a “annual competition for high school-aged students... to demonstrate their knowledge of environmental science and natural resource management at five training/testing stations.”

Grant for Reducing Plastic Pollution from National Geographic

This grant funded by National Geographic is a fiscal incentive to reduce plastic pollution.



Green Career & Technology Spotlight

Some major companies are doing great things to reduce the amount of waste that ends up in the landfills.

Toyota has many initiatives to decrease their waste and even use recycled content in their vehicles. Not only do they Green their company, but they help others be more green as well! Jaycie Chitwood, the Sustainable Mobility Consultant for Toyota Motor North America, Inc. explains her involvement with recycling in the Galapagos.





Earth Day

As Earth Day falls on a Sunday this year, be sure to encourage your students to participate in some type of activity this weekend with their families and friends.

Here are some ways you and your students can be active participants in Earth Day 2018!

GO OUTSIDE

The [US Forest Service](#) offers a searchable directory of parks, museums, and natural areas to explore!



ATTEND AN EARTH DAY EVENT

Visit your local news outlets to find information on Earth Day events in your community and celebrate this wonderful planet of ours with friends and family.

GET INVOLVED

Explore the other [EDN Toolkits](#) to see how you can plan your own event on Earth Day which addresses the issue of plastic pollution in your community then [register your event with us](#).

MAKE A COMMITMENT

Take the opportunity to explore options as an individual, a family, and/or a community to reduce your daily dependence on plastic products. [Tell us about your commitment](#) and be included in our Billion Acts of Green!



Appendix A

REDUCING PLASTICS IN YOUR CLASSROOM AND GREENING YOUR SCHOOL

We understand that it takes a lot of resources to promote a successful classroom! However, many of our supplies include a large amount of plastic. Here are some ideas for alternative supplies to reduce the amount of plastics in your classroom.

SUPPLY LIST:

- Clipboards- Use wooden ones instead of plastic
- Rulers- Use wooden ones instead of plastic
- Paper folders instead of plastic, also binders and notebook dividers
- Eco Dry Erase Markers- look for markers that can be refilled and/or are made from recycled plastic
- Bamboo Dry Erase Boards
- Bins and baskets- There is a lot to organize in your classroom, try to use bins made of natural materials
- Crayons and Colored pencils instead of markers
- Encourage all students to bring reusable lunch bags, utensils, and reduce plastic bags and wrapping

RESOURCE CENTERS IN US

There are many facilities that serve educators in providing free or extremely low-cost supplies. These supplies are reused and repurposed and are being rescued from ending up in landfills!

GREEN SCHOOLS PROGRAM

In addition to reducing plastics, there are many other ways that you can become an environmentally responsible classroom and school! Several national programs provide resources, grants, and recognitions to support and acknowledge all the work that schools and educators do to provide a healthier learning environment and future for our students. There are many more local, state, and regional programs that may be in your area, be sure to learn about the programs in your area.

US DEPARTMENT OF EDUCATION GREEN RIBBON SCHOOLS

The aim of U.S. Department of Education Green Ribbon Schools (ED-GRS) is to inspire schools, districts and Institutions of Higher Education (IHEs) to strive for 21st century excellence by highlighting promising practices and resources that all can employ. To that end, the award recognizes schools, districts, and IHEs that:

1. Reduce environmental impact and costs;
2. Improve the health and wellness of schools, students, and staff; and
3. Provide effective environmental and sustainability education.



GREEN SCHOOLS ALLIANCE

An alliance working together to nurture and fortify sustainable school communities with a mission to connect and empower schools worldwide to lead the transformation to a more sustainable future.

CENTER FOR GREEN SCHOOLS, USGBC

The Center for Green Schools works with school decision makers, community volunteers, and thought leaders in the public and private sectors to drive progress at the intersection of sustainability, education, public health and the built environment.

PROJECT LEARNING TREE, GREEN SCHOOLS PROGRAM

Project Learning Tree Green Schools program inspires students to apply their STEM and investigative skills to create greener and healthier schools – and save schools money. Importantly with PLT GreenSchools, it's students who lead the way. Students learn they can make a difference in the world as they are empowered to make changes and take ownership of the projects they lead to reduce their school's environmental footprint.

GREEN SCHOOLS NATIONAL NETWORK

GSNN provides K-12 teachers, administrators, leaders and professionals with evidence-based resources and tools to maximize financial and natural resources; improve the health and well-being of staff and students; and prepare students with the knowledge and skills for a sustainable future.

PROJECT GREEN SCHOOLS AND THE NATIONAL GREEN SCHOOLS SOCIETY

Developing the next generation of environmental leaders through education, project-based learning and community service.



Appendix B

YOUTH LEADERS/INVENTIONS

Many young adults and even children are working to save this planet against the threats of plastic pollution. They are starting companies and organizations, inventing pollution prevention strategies, and educating countless individuals. These are just a few of the inspiring young minds working to make this world a better place with less plastic pollution.

- A group of students at Santa Monica High School in California have banded together to form [Team Marine](#) and have become instrumental in their local legislative process to ban disposable plastics. Read [this article about the students](#) to learn more.
- [Nine young inventors](#) who are doing incredible things to help save the world's lands and oceans.
- [Boyan Slat](#), a young Dutch inventor who not only founded The Ocean Cleanup, a non-profit organization developing advanced technologies to rid the world's oceans of plastic, but also developed a cutting edge invention to help get rid of a significant amount of plastic in the marine ecosystem.
- [Additional videos](#) talking to kids around the world about what they're doing to combat plastic pollution.
- [Miranda Wang and Jeanny Yao](#), high school seniors, went in search of a new bacteria to biodegrade plastic -- specifically by breaking down phthalates, a harmful plasticizer. They found an answer surprisingly close to home.
- Siblings [Carter and Olivia Ries](#) were looking for ways to support wildlife conservation and keep this planet healthy for all individuals. Their organization [One More Generation](#) has an impressive campaign to end plastic pollution.



Appendix C

ADDITIONAL CURRICULUM RESOURCES

In addition to the many activities listed above, there are still a wealth of other resources available to help you address plastic pollution, climate literacy, and other environmental education concepts. Here are just a few to explore!

Plastics:

- [Conservation challenge](#) from the National Aquarium
- [Waste-free Lunch Tips](#)
- [5Gyres Plastic Pollution](#)
- Generation Earth- [Waste Reduction and Recycling Project Guide](#)
- [Plastic Pollution Coalition Education Resources](#)
- [Activities and Additional Resources](#) from UF IFAS Extension
- [UN Declares War on Plastics](#)

As our theme this Earth Day is ending plastic pollution, there are a plethora of other agencies and organization that are working towards this same goal. The UN Environment, for example, launched a war on plastics global campaign on February 23rd of 2017. This campaign aims to “eliminate major sources of marine litter: microplastics in cosmetics and the excessive, wasteful usage of single-use plastic by the year 2022.” It is amazing to know that other agencies and organizations are united in this cause!

Climate:

- [Climate Kids by NASA](#)
- [The Earth Gratitude Project](#)
- [Earth Day Network Ecological Footprint Quiz](#)
- [NOAA Climate.gov News & Features](#)
- [Teach the Earth Portal](#)

Arts & Crafts and Other Activities:

- An extensive list of [Earth Day related activities](#).
- [Earth Day Books](#): A list of books and resources from Scholastic that focus on Earth Day
- [EPA Lesson Plans](#): Teacher Guides and Online Environmental Resources for Educators
- [21 Earth Day Crafts and Classroom Activities Using Recycled Materials](#)





EARTH DAY NETWORK

UNDERWRITERS:



Produced by Earth Day Network for the End Plastic Pollution Campaign, 2018.

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This toolkit was last updated March 2018.

For more information, email education@earthday.org

Developed by Tracey Ritchie and Phoebe Bride.

Additional resources were created by many others working to fight against plastic pollution. They are given credit and websites referenced when their work was incorporated into this toolkit, though we did not follow strict citation guidelines. This Toolkit can be copied and disseminated for free as long as the format is not changed, and Earth Day Network is cited or given credit.