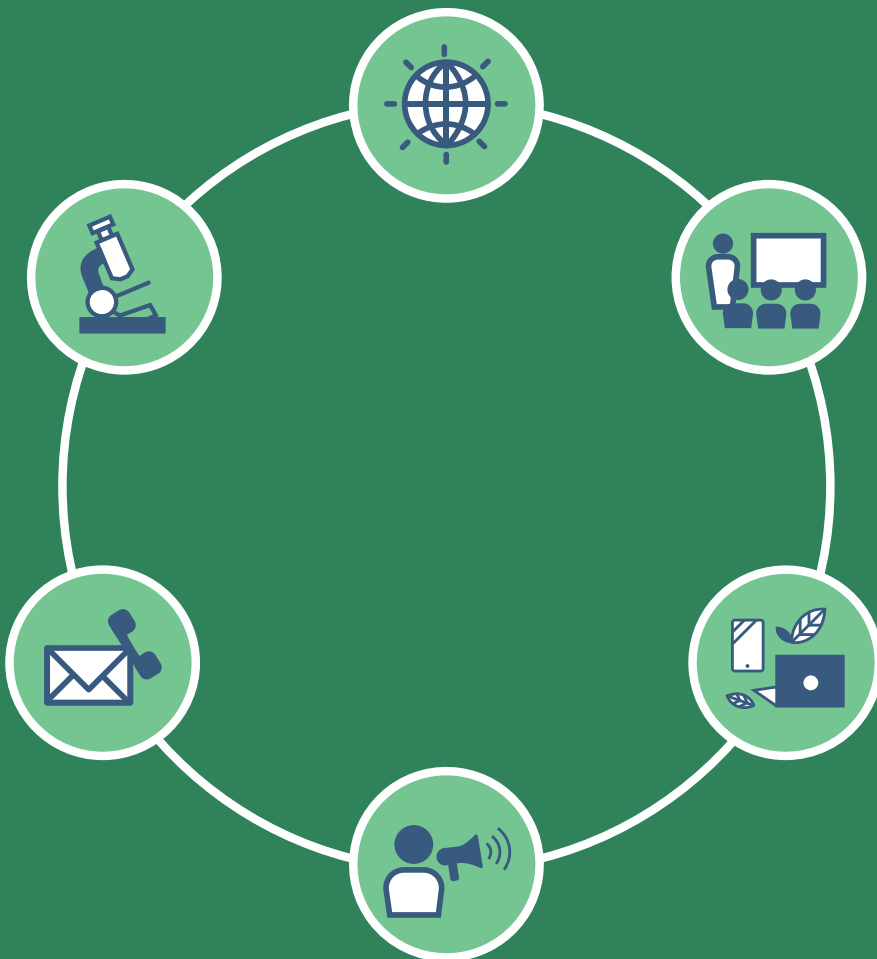


Climate Education Week Toolkit 2017



This Year's
Climate Education
Week Theme:

ENVIRONMENTAL &

CLIMATE LITERACY

Education is the foundation of progress. We need to empower our youth with the knowledge to inspire action to promote environmental protection. This starts in the classroom!

The theme for this year's Climate Education Week is Environmental & Climate Literacy. With the goal of educating and engaging K-12 students on climate change, this web-based cross-disciplinary resource includes a range of curricula, lesson plans, educational activities and films, and much more that will engage students to be fluent in local environmental issues, and tackle the unprece-dented challenge of climate change.

APRIL 2017						
S	M	T	W	TH	F	S
16	17	18	19	20	21	22  <u>Earth Day</u>
23	24  <u>Environmental Teach-In</u>	25  <u>Green Jobs & New Tech</u>	26  <u>Community Action Day</u>	27  <u>Civic Action</u>	28  <u>Science in the Classroom</u>	29

APRIL

Saturday

22



EARTH DAY

Earth Day falls on a Saturday, so encourage your students to go on an adventure in the great outdoors with their families! The U.S. Forest Service has created an amazing resource called [Discover the Forest](#), which locates the closest State and National Parks and Forests, as well as Wildlife Areas and Educational Museums based on your zip code.

If your students are unable to make it to a state or national park, or they live in another country, they can still use these activities to explore and learn outside where they live! There is also an [Activities](#) page that provides people of all ages fun learning opportunities to enjoy on their outdoor adventure. See age appropriate activity suggestions below:

K-4th Grade

PLUM LANDING THANK YOU, TREES

Pick your favorite tree on your outdoor journey, draw it, and write it a thank-you letter! Tell it why it's so special to you.

BECOME A JUNIOR FOREST RANGER

The Jr. Ranger Programs use Forest Service science and practices to encourage children 7 through 13 to enjoy and appreciate nature.

FAMILY ACTIVITY: LOOKING AT LEAVES

Children will take a closer look at leaves and find out more about leaf characteristics and how leaves can be used to identify plants.

5th-8th Grade

USE A COMPASS

Learn how to navigate in wilderness.

BOOK OF STUFF TO DO

Download and print this full book of activities and games, designed for your adventure through the forest.

FAMILY ACTIVITY: HAVE SEEDS, WILL TRAVEL

Observe, collect, and classify plant seeds in the forest.

High School

BOOK OF STUFF TO DO

Download and print this full book of activities and games, designed for your adventure through the forest.

LEAVE NO TRACE

Learn how to leave the forest as you found it!

TREE PLANTING

Learn to choose, plant and nurture a tree in your community.

PARENT GUIDE:

A guide for parents so the whole family can enjoy an escape to the forest.

APRIL

Monday

24



ENVIRONMENTAL TEACH-IN

Host an environmental teach-in in your classroom! Every year, Earth Day Network coordinates events around the world to showcase global support for the environmental movement. The ultimate goal is to build a global citizenry knowledgeable in environmental science and fluent in local and global ecological issues. Educators like yourself are on the forefront of this movement, and hosting a teach-in using the resources below is a great first step to engage your students!

K-4th Grade

Full Packet of SCIENCE INVESTIGATOR COLORING BOOK

LEAF RUBBING and ANIMAL TRACKS

Interactive games from the U.S. Forest Service.

COMMON COVERING CLOUDS

Arts and crafts activity from the U.S. Department of Energy allows students to create and understand different kinds of clouds.

5th-8th Grade

OUR CLIMATE OUR FUTURE

An award-winning multimedia experience that educates young people about the science of climate change and empowers them to take action.

CLAIM, EVIDENCE, REASONING WORKSHEET and EVIDENCE FIGURE SET

What is causing the global average temperature on Earth to increase?

MAPPING GREENHOUSE GAS EMISSIONS WHERE YOU LIVE

Use an EPA database of greenhouse gas emissions from large US sources to learn about the major greenhouse gases, what industries they come from, and where these emission sources are located.

Please register your teach-in event [here!](#)

High School

OUR CLIMATE OUR FUTURE

An award-winning multimedia experience that educates young people about the science of climate change and empowers them to take action.

AMOUNT OF GREENHOUSE GASES IN THE ATMOSPHERE

Work to graph the changes of the amounts of greenhouse gases in the global atmosphere.

YOUTH CLIMATE SUMMIT TOOLKIT

Host your own replicable, scalable model of a youth climate summit! Developed by The Wild Center, this program is a student-driven initiative that allows schools to organize around combating climate change.

CLIMATE LITERACY QUIZ

Conect4Climate and Earth Day Network have partnered to create this quiz that covers key concepts of the science of climate change.

TEAM MARINE:

Watch this short film from the Young Voices for the Planet series, as seen on PBS. High school students are concerned about the effects of plastic bags on the life in the ocean and on CO2 emissions. They dress up as plastic bag monsters and act to successfully ban plastic bags in their city of Santa Monica, one of the first cities to do so in the United States. There are action steps after the film to help ban plastic bags in your community!

#Youth4Climate

In 2015 195 countries came together in Paris and reached an unprecedented agreement to limit global warming to well below 2 degrees Celsius. Today's generation is the first generation to feel the impacts of climate change and the last that can do something about it. A flotilla of partners are working together to promote young people around the world to support climate action and implement solutions. This is a year of climate action, we need to move from agreements to implementation and transition to a resilient low-carbon future.

The #Youth4Climate social media campaign is an open discussion for all to join in the youth call for climate action and to show their leadership in addressing the climate challenges and opportunities

Join us, and follow [this link](#) to learn more about the initiative!

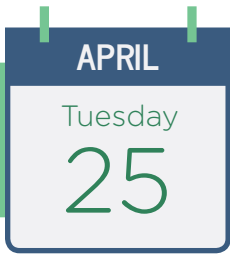
#Youth4Climate because...

Sample Tweets:

- 1 #Youth4Climate because _____. Selfie Tweets
- 2 Make your voice heard. Take a picture of you or with your group of friends raising the climate sign and fill the blank: #Youth4Climate because _____.
- 3 We want to hear from you. As a #Youth4Climate what do you stand for? What's ur solution, ur problem? Send a photo: #Youth4Climate because _____.
- 4 Tell everyone why you stand as a #Youth4Climate. Take a picture and create a postcard filling in the blank: #Youth4Climate because _____.

[Download the prompt now!](#)





GREEN JOBS & NEW TECHNOLOGIES

The “green economy” has been emerging for some time, and it promises young people entering the work force both the opportunity to fight climate change and long-term job security.

High School

EXPLORING GREEN JOBS ACTIVITY

Using this lesson, students will take a Myers-Briggs type inventory of their personality type to start to understand what jobs might suit their personal styles. Students need access to a computer to perform this activity.

This activity was taken from [CLEAN Network’s Collection of Climate and Energy Educational Resources](#).

New Green Technologies

Learn about the What, Why, and How of Hydrogen Fuel Cells

Short Films about Hydrogen Fuel Cell Technology and the Future of Renewable Energy:

- Fueled by [Oil Creek](#)
- Fueled by [Lemonade](#)

Expert Views: Dr. Samuelsen on [the Potential of Fuel Cells in mainstream Society](#)

Expert Views: Dr. Samuelsen on [How We Can Use Excess Renewable Energy](#)

Expert Views: Dr. Samuelsen on [Biomass](#)

K-4th Grade

NATURAL INQUIRER SCIENTIST CARD SERIES

This card series highlights over 160 different scientists and their fields of study. Cards can be downloaded and printed, and there are two activities (Lesson 1 and Lesson 2) which encourage students to use their imagination and envision themselves as scientists!

5th-8th Grade

JOB CORPS: GREEN JOBS, INTEGRATING CAREER TECHNICAL TRAINING INTO THE “GREEN ECONOMY”

Developed by the United States Department of Agriculture and the U.S. Forest Service.

Pick up a daily newspaper or news magazine. Students should flip through the paper until they find one ad that is related to the environment.

Here are some examples of ads:

- 1 Replace your windows and qualify for an energy rebate.
- 2 Buy this organic milk, chocolate bar, or other product.
- 3 Buy these shoes made from recycled soda bottles.
- 4 Test drive our cars and trucks that get great gas mileage.

Once the students have selected an ad, have them answer the following questions verbally or in writing:

- 1 What is the ad trying to sell you?
- 2 What is the ad’s link to the environment? What aspect of the environment does the ad try to promote?

For example, if the ad is for an organic chocolate bar, the advertiser is saying that chemicals were not used to grow the chocolate. This helps protect our soil and water resources.

- 3 Name a job that someone does related to the product in the ad.

For example, in the organic chocolate bar ad, people were hired to work in the plant where the chocolate bar was made, design a cool label for the chocolate bar, deliver the chocolate bar to stores, and design the ad that featured the chocolate bar.

Wrap-Up:

The jobs named in question 3 should all be pretty standard jobs, but they now have a green adaptation because the product is organic.

Ask the students:

What vocational trade are you most interested in learning about? How can that trade become green?

APRIL

Wednesday

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COMMUNITY ACTION DAY

K-4th Grade

WATCH LANDFILL BLUES

A PBS film about recycling, taken from The Environmental Protection Agency's [Environmental Curriculum](#).

COMMUNITY CLEAN-UP ACTIVITY GUIDE

Lets students organize identify, and cleanup recyclable materials outdoors!

RECYCLING PROCESS

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

5th-8th Grade

LEARN ABOUT SCRAP METAL RECYCLING

There are a lot of materials that can be recycled, some your class might not expect! Learn how scrap metal is typically received, shredded and separated to be recycled!

RECYCLING PROCESS

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

RECYCLING AND WASTE REDUCTION

A hands-on activity that will allow students to be able to create their own recycled paper using old newspapers, while simultaneously learning the basic concepts of recycling and waste reduction.

COMMUNITY CLEAN-UP ACTIVITY GUIDE

Lets student organize identify, and cleanup recyclable materials outdoors!

High School

WATCH DREAMING IN GREEN

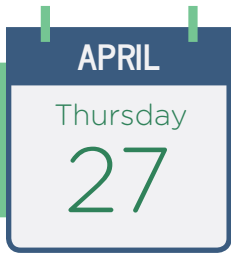
Dreaming in Green is a film from [Young Voices for the Planet](#) about four Florida middle school students that learn about the potential effect of sea level rise on Miami's economy, they conduct a school energy audit with the help of non-profit, Dream in Green. Through their actions, their school saves thousands of dollars in energy costs by doing simple things that add up.

RECYCLING PROCESS

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

After the film, lead a school energy audit of your own!

- 1 Print energy audit sheets [Energy Audit Checklist](#) and have students walk through their school, working to identify areas where energy savings are possible. Either as a group or in smaller groups.
- 2 Discuss why such procedures (HVAC, lighting, etc.) are in place, and how they relate to the environment.
- 3 Decide whether findings are significant or not. If they're significant, consider a presentation to principal/school administrator to provide recommendations for better energy savings!



CIVIC ACTION

Collective civic action is needed to make real, lasting progress for the environment. By engaging your students in Climate Education Week, you will both educate them on the destruction of the environment happening around the world, and provide them with the tools they need to encourage government at all levels to act to safeguard the local environment. Together, these actions will add up to substantive and lasting progress on a national and global scale.

K-4th Grade

Use the format below to teach your students how to write a letter to Congress!

CHANGING YOUR COMMUNITY ACTIVITY

Allows younger children to begin to identify local issues and form solutions.

5th-High School

WILDFIRE ACTIVITY

There is an emergency in the town of Carsonville, in county Rachel. A wildfire is wreaking havoc throughout the community, and various types of local government are convening to solve the problem.

DISCUSS WHAT A CONGRESSIONAL DISTRICT IS

Use this map to determine which congressional district you are in, as well as who represents your district in Congress.

VISIT USA.GOV

To find websites for cities, counties, towns, and local communities in your state, with the relevant contact information.

Date
Local Politician/Letter Recipient Name
Office Address
City, State, Zip code

Dear _____:

The first section of your letter should explain who you are. Give just a bit of background information on yourself that may explain why the issue is important to you.

The second section of your letter should explain the issue itself. Provide some general information and facts that personally caught your attention and concern you.

The third section of your letter should outline what you would like the recipient of your letter to do about the issues you're concerned about. Propose solutions that you would like to see put into action!

The last section of your letter should explain why you feel that this is an issue. Do you have a personal connection? Consider telling a story that relates to the problem you are discussing.

Sincerely,
Your Name

APRIL

Friday

28



SCIENCE IN THE CLASSROOM

Invite a scientist to educate your class about climate change and the importance of science in the classroom! This is a great opportunity for all parties involved. Both you and the students can use the scientist as a resource, and the scientist has a chance to convey their work to a different, more diverse audience.

Many schools have local relationships with organizations and agencies, so it might be worth investigating to see if there exists such a network between your school and the local scientific community.

If your school does not have such a relationship, seek experts on environmental and climate science in your community! Local government, businesses, and nonprofit/advocacy organizations can be great resources, as well as nearby colleges and universities.

You can also solicit potential speakers within your own network. Attend a PTA meeting to ask parents, or within the school itself. A guest lecture from the science teacher could also be beneficial!

States and cities employ scientists in government roles, including at fish and game commissions, parks, aquariums, arboretums, and museums; and at agencies such as environmental inspection agencies, crime laboratories, and public health monitoring agencies.

The [Environmental Protection Agency](#) has a list of their regional offices, with contact information. Reach out to local scientists in your area!

If you're unable to arrange for a scientist to speak to your class, here are some other science-related resources:

K-8th Grade

VIDEOS

Choose from one these educational videos from all different scientific disciplines to show your class.

High School

MOOCs

MOOCs provide affordable and flexible way to learn new skills, pursue lifelong interests and deliver quality educational experiences at scale. Subjects include computer science, engineering, and biology and life sciences.

The World Bank's flagship climate change report series Turn Down the Heat and its complementary free Massive Open Online Course (MOOC) have helped bring important climate related issues to policy makers and concerned

citizens, reaching nearly 39,000 people in more than 180 countries worldwide.

Now, with the adoption of the Paris Agreement at COP 21, World Bank is ready to launch a new and exciting MOOC: "From Climate Science to Action" - Turn Down the Heat Series."

Watch [this video](#) for more information about the course.

Follow [this link](#) to learn about enrolling in the course.

FURTHER K-12 RESOURCES

The Climate Education Week Toolkit is a free, easy-to-use, ready-to-go resource with hand-picked lesson plans and activities for all your K-12 students. It meets both [Next Generation Science](#) and [Common Core](#) standards.



CLEAN Collection: Reviewed climate and energy educational resources.



CLEAN's new **Earth Systems Investigations** (ESIs) are suggested learning paths that integrate resources from the CLEAN Collection and other trusted science and data content sites into a [three-dimensional learning](#) sequence that is engaging.



NASA Climate Change Lessons – Peer-reviewed collection of climate change education resources geared towards upper elementary school, middle school, and high school students, from the National Aeronautics and Space Administration.



EPA Environmental Curriculum – A variety of lesson plans and activities for many different topics, including climate change, from the US Environmental Protection Agency. Appropriate for middle school and high school students.



Our Climate Our Future is an award-winning multimedia experience that educates young people about the science of climate change and empowers them to take action.



Future Earth: The Science and Soul That Will Save Our Planet



Climate Generation supports educators, students and the public with science-based interdisciplinary [resources](#) on climate change, its implications and solutions to achieve climate literacy. Check out their [Summer Institute for Climate Education](#).



Host a **Youth Climate Summit** using The Willd Center model! Get all the tools to host a [participant-driven educational conference](#).



Teach the Earth Portal – Teach the Earth supports teaching and learning about the Earth by providing online resources for educators in the geosciences and related fields. Resources include classroom activities, course descriptions and syllabi, information about pedagogical strategies, topical collections, and more.



The Atmospheric Radiation Measurement (ARM) Climate Research Facility Education and Outreach Program creates [basic science lessons](#) related to weather and climate for K-12th grade.



Climate Literacy: The Essential Principles of Climate Science is an interagency guide that provides a framework and essential principles for formal and informal education about climate change.



The Earth Gratitude Project shares wisdom on sustainability and gratitude from the world's leading experts, including The Dalai Lama, The Prince of Wales, Elon Musk, Nobel Prize winning physicist Steven Chu, urban planner Leon Krier, Wangari Maathai, Ron Finley, The Earth Day Network, Global Green and more. Remember to try an hour of personal net zero on April 22nd, using these tips and strategies!



Download Earth Day Network's interactive Climate Change iTextbook, [The Story of Climate Change](#), in the Apple iBook Store!



NOAA Climate Change Education Resources – Complete lesson plans about the carbon cycle, changing seasons, climate change impacts, and climate monitoring from the National Oceanic and Atmospheric Administration.



NOAA Climate.gov [News & Features](#)



Earth Day Network **Ecological Footprint Quiz** helps measure how much biologically productive land and sea is used by a given population or activity, and compares this to how much land and sea is available.

UNDERWRITERS

