

## On-Line Resources for Teachers and Parents During The Stay At Home Order

The following resources have been compiled from emails sent by education and conservation partner organizations of the City of Toledo, Lucas Soil & Water Conservation District, and TMACOG.

### **Curriculum Resources and Lesson Plans**

#### **National Science Teachers Association (NSTA)**

To support all educators during this difficult time, NSTA is offering a free 30-day membership, providing you with access to more than 12,000 digital professional learning resources and tools. Simply [create an account here](#) and start developing your own personalized digital learning experience. Check out the [online resources](#) they have available, including their [Interactive eBooks+](#), [web seminars](#), and [free book chapters](#). Or take advantage of their new lesson plans on the coronavirus for [secondary](#) and [elementary](#) students (how to [talk about coronavirus in class](#), what science classes are [teaching students about coronavirus](#), and three [lesson plans](#) (about coronavirus) for science, math, and media literacy.) Check out the [NSTA website](#) daily for featured content and tips on how to use these resources.

#### **NGSS@NSTA Classroom Resources**

Check out these NGSS@NSTA [Classroom Resources](#) vetted by NSTA teacher curators. This week's focus is engineering.

- Grades K–2: [Invent a Backscratcher From Everyday Materials](#)
- Grades 3–5: [Rocket Activity 3.....2.....1.....PUFF!](#)
- Grades 6–8: [STEM: Have Seeds, Will Travel](#)
- Grades 9–12: [Energy and the Poor: Black Carbon in Developing Countries](#)

#### **Ohio STEM Learning Network At-Home**

Battelle's education team, which manages the Ohio STEM Learning Network, has pulled together a list of excellent at-home education resources.

<https://osln.org/2020/03/school-closure-resources-for-parents>

#### **NSF Community for Advancing Discovery Research in Education**

This collection of STEM education online learning activities, tools, and tips has something for every grade level, and you can filter by discipline and grade levels: <http://cadrek12.org/online-learning>. These resources were developed by National Science Foundation-funded education researchers.

#### **STEMx network**

STEMx is a national coalition of state STEM organizations, including Ohio's, also managed by Battelle. The **STEMx Parent's Guide to STEM** is a resource for parents with more than 30 pages of research and interviews examining how to understand STEM education. [Download the guide here](#). STEMx also provides [a list of school closure resources](#) with new links from The Henry Ford Museum, Texas Instruments, the National Science Teaching Association.

## **Imagination Station**

Visit Imagination Station's [Stay at Home Science](#) page. New experiments are added every week, so keep checking back!

## **National Environmental Education Foundation**

Environmental Education Week is April 20-24. NEEF provides an entire page of resources entitled Environmental Education at Home including activity guides, environmental and citizen science projects, educational apps, virtual visits and field trips and infographics at <https://www.neefusa.org/education/environmental-education-home>. At the bottom of the page is a link to daily activity recommendations for National Environmental Education Week.

## **Project WET**

Project WET has made several of its award-winning activities available free of charge to parents and educators during this time to ensure everyone has resources to continue our children's education.

[Download free at-home learning resources.](#)

Check this page weekly to access free and discounted tools for all school subjects:

[Home and Telecommuting Resources](#)

[DiscoverWater.org](#), a collection of online games, is designed for use by children ages 7-12 and for educators and parents of this age group. Although targeted for tweens, learners of all ages enjoy them.

[Visit our climate education page](#) to learn what else we have in store for the 50th anniversary of Earth Day.

## **Ohio Sea Grant**

Ohio Sea Grant curriculum lessons are available freely online, and many are easy to adapt for home use. Visit <https://ohioseagrant.osu.edu/education/resources>.

## **Michigan Sea Grant**

The HOMES @ Home series is returning for the month of April to support Great Lakes exploration and learning from home. This series is full of Great Lakes fun facts, activity suggestions for your family, and daily challenges. Geared for families with scalable activities from younger to older learners, each lesson features different Great Lakes content and hands-on activities you can do right at home. Videos will be live streamed and recorded on Tuesdays and Thursdays at **10:30 a.m. - 11 a.m.** throughout April. The first 20 minutes includes fun, engaging content, followed by 10 minutes for Q&A -- as well as a family challenge. To watch the video via Zoom, visit <https://msu.zoom.us/j/550958988>. Viewers can also watch virtually with friends on the [MI Sea Grant Facebook Page](#), where it will be live streamed. Families that complete 5 challenges from the different HOMES @ Home episodes can complete [this Google form](#) to receive a Great Lakes Jr. Scientist certificate to print and proudly display at home. Catch up on past lessons, along with lots of other great Michigan Sea Grant videos and activities, on our website <https://www.michiganseagrant.org/educational-programs/h-o-m-e-s-at-home/>.

## **Green Teacher**

Green Teacher offers a large assortment of free content on their website, including two free articles for each magazine issue they have published. They hope these articles, activities, and lesson plans can help you weather this storm. For access and for more information, please [visit GT here](#).

## **National Oceanic and Atmospheric Administration (NOAA)**

NOAA provides a quick roundup of their most popular educational resources about the ocean and atmosphere that can be used without leaving the house at <https://www.noaa.gov/education/stories/staying-in-keep-learning-with-science-activities-kids-and-families-can-do-at-home>.

## **GLOBE**

Taking cloud observations for GLOBE is a great way to get outside and get some fresh air while helping NASA with its research on clouds. I encourage everyone to download the GLOBE Observer app. Once you have taken an observation, you will get an email in a couple days from NASA that compares your observation from the group with an image from a satellite. <https://observer.globe.gov/about/get-the-app> - submitted by Dr. Kevin Czajkowski, University of Toledo [kevin.czajkowski@utoledo.edu](mailto:kevin.czajkowski@utoledo.edu)

## **REI Outfitters**

REI is sharing an [outdoor scavenger hunt](#) with instructions and handouts.

## **Ohio Department of Natural Resources**

ODNR is posting the [Wildflower Bloom Report](#) each week with the most up-to-date information on what wildflowers are in bloom and where different species can be found. Ohioans can document their finds and post to social media using the hashtag #ohiowildflowers.

## **Project Learning Tree**

PLT is offering free nature activities from our Nature Activities for Families supplement: Walking in the Forest, Exploring a Local Park, In Your Own Backyard, Inside, Around Your Home, Teaching with i-Tree. Explore these free resources [here](#) and PLT's free curriculum for [Teaching with i-Tree](#). Create an account to download the materials. Click [here](#) to browse online training and e-learning options!

## **ODNR Division of Wildlife/Project WILD**

Ohio Project Wild has compiled a one-stop shop for all things online education from the Division of Wildlife at <http://wildlife.ohiodnr.gov/education-and-outdoor-discovery/conservation-education-project-wild#tabr4>.

Here you'll find a new resource, Chat with a Biologist, and information in the following categories: General Wildlife Resources, Gardening/Pollinator Habitat Resources, Birds/Birdwatching Resources, Endangered Species, Fish and Wildlife Management and Research Resources, Invasive Species and Wildlife Diseases, Citizen Science Resources.

## National Wildlife Federation

NWF is encouraging parents and caregivers to connect with nature by getting themselves and their children outside, as well as providing resources when they are inside at home and wants to ensure you have access to [Nature Play at Home](#), in case it's a helpful resource to you or others in your circle. In addition, **all NWF online resources– including those related to Ranger Rick and all its children's publications and those oriented toward educators – are now free and available to all.** Here are a few resources to help inspire young people with the wonders of wildlife and nature:

Free Ranger Rick Digital magazines and content:

- Free access to [the digital editions, activities, and resources of Ranger Rick are available](#) through June.
- Parents working to educate and entertain their children while schools are closed also can access the monthly [Ranger Rick Educator's Guides](#) and [Ranger Rick Jr. Parent Reading Guides](#).

Free Garden for Wildlife Tips:

Free access the array of [information, tips, and services to help gardeners attract more butterflies, birds, and other wildlife in their backyards](#)

## Wildlife Habitat Council

WHC offers kid-friendly on-demand webinars on various topics, including the importance of native plants to bees and butterflies and ways to help at home and animal adaptations. Bees and Butterflies in Your Backyard – A WHC Kid-Friendly Webinar and Top 10 Weird, but Cool, Animal Adaptations - A WHC Kid-Friendly Webinar can be found at <https://www.wildlifehc.org/knowledge-resource/>.

## National Audubon Society

Audubon for Kids is a new hub, to be updated each week with a new theme, for child-friendly activities that can be done from home or in a yard or park. Visit <https://www.audubon.org/get-outside/activities/audubon-for-kids>.

## Girls Who Code

Girls Who Code has just released **FREE** weekly [Girls Who Code at Home](#) unplugged and online activities for 3rd-12th grade students. Learn coding from the comfort of your home. Visit <https://girlswhocode.com/code-at-home/>. – submitted by the Northwest Ohio Center for Excellence in STEM Education, Bowling Green State University <https://www.bgsu.edu/nwo/>

## Skype A Scientist

Skype a Scientist has thousands of scientists ready to chat with people around the world. Teachers can choose the type of scientist that will fit their classroom. Families stuck at home during this pandemic can also get a scientist virtually into their living room. Visit <https://www.skypeascientist.com>. – submitted by Ohio Sea Grant

## PBS Learning Media

Use the links below to quickly access interactive lessons for remote learning. These lessons are self-contained and self-paced. <https://www.pbslearningmedia.org/collection/ilcoll/>

## **Carolina Biological Supply**

Carolina Biological Supply Company is committed to supporting parents, teachers, and school districts with learn-from-home resources during this challenging time. Explore the resources below for elementary and middle school students from Carolina's Building Blocks of Science™ 3D, Innovators in Science, and Smithsonian Programs. <https://www.wgbh.org/distance-learning-center>

## **Arbordale Publishing**

Arbordale is offering free access to all of dual-language or multilingual digital books with read aloud and word highlighting through May 15. The quick and easy way to access is by clicking this link: <https://www.arbordalepublishing.com/password-protect.php?l=11638>. If classroom teachers/educators would like to use the learning management system and assessments, they should set up an account at <https://www.arbordalepublishing.com/user.php> and then add their students. Use school site license code **UGEI16**. If it takes them to the homepage, click on eBook Access (top) and they should be in.

## **INFOhio Social and Emotional Learning**

With over 75,000 lesson plans, printable, videos, teaching strategies, and other instructional resources, [INFOhio's Educator Tools](#) is a great place to find resources to support [Ohio's Social Emotional Learning Standards](#) - and at no cost to Ohio teachers.

For more information: <https://www.infohio.org/educator-tools>

## **Films, Videos, and Virtual Field Trips**

### **One Earth Film Fest**

For the entire week of 2020 Earth Day and in honor of the 50th anniversary of Earth Day on April 22, One Earth Film Fest invites you to participate in an Earth Week Virtual Mini Film Festival, in partnership with the City of Chicago. Register for one or more free screenings at <https://www.oneearthfilmfest.org/earth-day-virtual-mini-film-fest>, watch a film in community online, then discuss with experts via live chat on Zoom.

### **Great Lakes Science Center**

Through its YouTube channel ([www.bit.ly/glsc-utc](http://www.bit.ly/glsc-utc)), the Great Lakes Science Center (<https://greatscience.com/>) is supporting educators and families with a free online engagement called "Curiosity Corner Live." "Curiosity Corner Live," offered twice daily weekdays — 10:30 a.m. and 3 p.m. — can be found on YouTube. The new web-based series of STEM curriculum and programming builds off the GLSC's "Curiosity Corner" blog featuring virtual fun learning experiences.

### **The Toledo Zoo**

The Toledo Zoo is bringing the zoo to you with virtual learning experiences that will connect you with educators and animal ambassadors here at the zoo through tours & classroom lessons. Children and family lessons come with a packet of activities to do at home. **Register now at** <https://www.toledozoo.org/virtual>. Programs will take place on the platform, Zoom, which is free to access here: <https://zoom.us/>

What You Need to Know:

- You need an internet connection and a device to access Zoom
- You will receive an email invite and link the day before the program to connect with the Toledo Zoo
- This program will be about 20-30 minutes long with opportunities to ask questions to Zoo staff
- Programs for multiple ages are available
- The Zoo will not provide technical support before or during the program

### **Cincinnati Zoo & Botanical Gardens**

Join the Cincinnati Zoo for a Home Safari Facebook Live each day at 3pm EDT where they will highlight one of their amazing animals and include an activity you can do from home. Don't have access to social media? No worries! All videos will be posted to this webpage (<http://cincinnati-zoo.org/home-safari-resources/>) and to their YouTube channel (<https://www.youtube.com/user/CincinnatiZooTube/featured>) shortly after the Facebook Live ends.

### **Camp Nuhop**

Camp Nuhop is an outdoor education center in Perrysville, Ohio and is offering on-line home outdoor education at <https://sites.google.com/nuhop.org/at-home-outdoor-education/home> on a rolling basis.

### **USDA Forest Service**

Forest Service Nature LIVE provides distance learning adventures. Register, tune in, and experience the Forest Service's latest LIVE programs or access past adventures. Live adventures take you to exciting places where you meet experts and educators. Previous adventures allow you to access full programs, searchable video segments and classroom resources anytime. For more information, click [here](#).

### **Metroparks Toledo**

Metroparks Toledo enables you to bring a naturalist into your living room with some help from their [YouTube channel](#). Topics include scavenger hunts, creating a backyard birdfeeder, story time, and tree identification.

### **The Olander Park System**

TOPS is providing a Virtual Programs page with activities for use at home and in the parks as a list of resources available from their partners. To access Virtual Programs, click [here](#).

### **Wood County Park District**

Wood County Park District is bringing nature to you. Check out these fun videos with interesting facts.

[Sawyer Quarry Nature Preserve](#)

[Backyard Naturalist](#)

[Skits for Snake](#)

[Just Nature: Wind Through Wine Pines](#)

Play Spring Nature Bingo to discover nature in your backyard, on a walk through the neighborhood, or in a park or nature preserve. (There are four different cards in all.)

[Download Spring Nature Bingo.](#)

Carter Historic Farm staff have created opportunities to learn at home.

Check these out:

[Sheep Facts and Crafts](#)

[Goat Activity](#)

### **Virtual Museum Tours**

Take a tour of a world renown museum to broaden a child's horizons.

- [Toledo Museum of Art](#)
- [British Museum, London](#)
- [Guggenheim Museum, New York](#)
- [National Gallery of Art, Washington, D.C.](#)
- [Musée d'Orsay, Paris](#)
- [National Museum of Modern and Contemporary Art, Seoul](#)
- [Pergamon Museum, Berlin](#)
- [Rijksmuseum, Amsterdam](#)
- [Van Gogh Museum, Amsterdam](#)
- [The J. Paul Getty Museum, Los Angeles](#)
- [Uffizi Gallery, Florence](#)
- [MASP, São Paulo](#)
- [National Museum of Anthropology, Mexico City](#)
- [The Louvre, Paris](#)

submitted by the AfterSchool Alliance [www.afterschoolalliance.org](http://www.afterschoolalliance.org)

### **Grow Next Gen Virtual Farm Trip**

Take your class on a virtual field trip to learn more about modern farming and connect with a real Ohio soybean farmer.

<https://grownextgen.org/virtual-field-trips>