

The listing below is a compilation of free nature-based resources available to any citizen during the COVID-19 school closures. If you have any further questions or need ideas in implementing these resources, please reach out to your local Conservation Educator in your region at [www.mdc.mo.gov](http://www.mdc.mo.gov). We want your families to stay safe and healthy during this time period, while taking the opportunity to explore and enjoy your backyard areas in a safe way.

K-12 Nature Activities and Family-Friendly Citizen Science Opportunities		
Project Learning Tree	Listing of activities to do with children inside and within a safe space outside.	<a href="https://www.plt.org/educator-tips/activities-to-do-with-children-at-home">https://www.plt.org/educator-tips/activities-to-do-with-children-at-home</a>
Kid Wings Virtual Owl Pellet Dissection	Dissect an owl pellet virtually and become a barfologist!	<a href="http://kidwings.com/virtual-pellet/">http://kidwings.com/virtual-pellet/</a>
Ranger Rick	Free digital access to educator guides, magazines, outdoor activities, and crafts	<a href="https://rangerrick.org/">https://rangerrick.org/</a>
Litzsinger Road Ecology Center	Litzsinger Road Ecology Center (LREC), has started a shared folder with resources for Outdoor Learning from Home. Simple activities suitable for teachers and parents.	<a href="https://drive.google.com/drive/folders/1qNQaWZ2EcCRnMWjt0sod5xowZj9IxBa">https://drive.google.com/drive/folders/1qNQaWZ2EcCRnMWjt0sod5xowZj9IxBa</a>
National Geographic Kids	Explore mammals, birds, reptiles, amphibians, invertebrates and fish	<a href="https://kids.nationalgeographic.com/animals/">https://kids.nationalgeographic.com/animals/</a>
Butterflies and Moths of North America	Butterflies and Moths of North America (BAMONA) is an ambitious effort to collect, store, and share species information and occurrence data. You can participate by taking and submitting photographs of butterflies, moths, and caterpillars	<a href="https://www.butterfliesandmoths.org/">https://www.butterfliesandmoths.org/</a>
Bugs In Our Backyard	The core activity for <i>BioB</i> takes advantage of the bugs in your own backyard, schoolyard or neighborhood. Students can become citizen-scientists by surveying this diversity of insects and plants.	<a href="https://www.bugsinourbackyard.org/">https://www.bugsinourbackyard.org/</a>
eBird	Explore birds and hotspots, share your sightings, and track your birding lists	<a href="https://ebird.org/home">https://ebird.org/home</a>
Project Feeder Watch	Participants periodically count the birds they see at their feeders and send their counts to Project FeederWatch. <b>Your bird counts help you keep track of what is happening in your own backyard and help scientists track long-term trends in bird distribution and abundance.</b> With	<a href="https://feederwatch.org/">https://feederwatch.org/</a>  (App available for download)

	FeederWatch, your observations become part of something bigger.	
Budburst	Budburst brings together researchers, educators, gardeners, and citizen scientists on a shared journey to uncover the stories of plants and animals affected by human impacts on the environment.	<a href="https://budburst.org/">https://budburst.org/</a>
Nature's Notebook	Tracking seasonal changes in plants and animals	<a href="https://www.usanpn.org/natures_notebook">https://www.usanpn.org/natures_notebook</a>
Project Noah	A global citizen science platform to discover, share and identify wildlife. Students can create and publish their own multimedia wildlife journal.	<a href="https://www.projectnoah.org/">https://www.projectnoah.org/</a>
SciStarter	Over 3,000 projects and events are searchable by location, scientific topic, and age level, and by joining SciStarter, members can track their contributions and provide valuable feedback. Can also search for ongoing projects near you to contribute too as a class or family!	<a href="https://scistarter.org/">https://scistarter.org/</a>
Grow Native!	A great resource on learning the habitat need of native plants as well as connecting to resources to further this process. Families can start planning their own native rain, bird, or pollinator garden in their backyards!	<a href="http://growse.org">http://growse.org</a>
<b>K-12 Nature-based Lessons and Curriculums</b>		
Discover Nature Schools	Missouri-based resource curriculum available for K-12 grades. Digital access includes teacher guide, student guide and student notebook for digital or PDF downloads.	<a href="https://nature.mdc.mo.gov/discover-nature/teacher-portal/discover-nature-schools">https://nature.mdc.mo.gov/discover-nature/teacher-portal/discover-nature-schools</a>
Missouri Environmental Education Association	Resources and lessons to promote outdoor learning in Missouri	<a href="https://www.meea.org/">https://www.meea.org/</a>
Cornell Lab of Ornithology: Free e-Bird Lessons (K-12)	"The complete curriculum provides educators with fun, hands-on lessons that connect kids to nature through the world of birds. Each grade-band offers youth the opportunity to make careful observations, collect and explore data and patterns, and build STEM practices, all while	<a href="https://www.birds.cornell.edu/k12/free-ebird-lessons/">https://www.birds.cornell.edu/k12/free-ebird-lessons/</a>

	addressing standards align science content.”	
National Park Service	Lessons searchable by location, grade range, subject and more	<a href="https://www.nps.gov/teachers/teacher-resources.htm">https://www.nps.gov/teachers/teacher-resources.htm</a>
US Fish and Wildlife Service	Conservation Education Curriculum to learn about migratory ducks by participating in the Junior Duck Stamp conservation program. Promotes the Arts and includes youth and educator guide.	<a href="https://www.fws.gov/birds/education/junior-duck-stamp-conservation-program/conservation-education-curriculum.php">https://www.fws.gov/birds/education/junior-duck-stamp-conservation-program/conservation-education-curriculum.php</a>
Wild Classroom	Kids explore and understand the world around them	<a href="https://www.worldwildlife.org/teaching-resources/">https://www.worldwildlife.org/teaching-resources/</a>
National Science Teachers Association	Free 30 day membership providing access to more than 12,000 digital professional learning resources and tools, including lesson plans and science content.	<a href="https://www.nsta.org/?utm_source=realmagnet&amp;utm_medium=email&amp;utm_term=Educators%3A%20We%20Hear%20You%20and%20Are%20Here%20to%20Help%21&amp;utm_campaign=NSTALearningTogetherEmail%231%20v2">https://www.nsta.org/?utm_source=realmagnet&amp;utm_medium=email&amp;utm_term=Educators%3A%20We%20Hear%20You%20and%20Are%20Here%20to%20Help%21&amp;utm_campaign=NSTALearningTogetherEmail%231%20v2</a>
The Wonder of Science	Science-based lessons complete videos to explore the natural phenomena around you	<a href="https://thewonderofscience.com/">https://thewonderofscience.com/</a>
<b>Online and Interactive Field Guides</b>		
MDC Field Guide	Identifies a variety of Missouri’s plants and animals, including fungi	<a href="http://mdc.mo.gov/node/73">http://mdc.mo.gov/node/73</a>
Plant Snap	Identify plants, flowers, cacti, succulents, and mushrooms in seconds with the click of a button on your mobile device	<a href="https://www.plantsnap.com/">https://www.plantsnap.com/</a>
iNaturalist	App for phone and tablet that identifies photographic observations of plants and animals (suggested use with middle school through adults). This information is uploaded to fellow naturalists for additional identification and then used for citizen science projects. <b>Activity Suggestion: Download the app and identify/observe every species of flower, insect, backyard weed you can find – then you are doing a bioblitz (inventory) of your own backyard!</b>	<a href="https://www.inaturalist.org/">https://www.inaturalist.org/</a>  (you will need to create an account first – video tutorials are available)
SEEK	App for phone and tablet that identifies photographic observations of plants and animals (suggested use with preschool to elementary	<a href="https://apps.apple.com/us/app/seek-by-inaturalist/id1353224144">https://apps.apple.com/us/app/seek-by-inaturalist/id1353224144</a>

	<p>students). “Use the power of image recognition technology to identify the plants and animals all around you. Earn badges for seeing different types of birds, amphibians, plants, and fungi and participate in monthly observation challenges with Our Planet on Netflix.” Simply point your phone at any living thing. <b>Activity Suggestion: Download the app and identify/observe every species of flower, insect, backyard weed you can find – then you are doing a bioblitz (inventory) of your own backyard!</b></p>	<p>(you will need to create an account first – video tutorials are available)</p>
Herp Mapper	<p>Download the app to identify the reptiles and amphibians in your area. Upload to observations and contribute to the wider scientific community!</p>	<p><a href="https://www.herpmapper.org/">https://www.herpmapper.org/</a></p>
Arbor Day Foundation Tree Identification	<p>Helps citizens in identifying trees in the Midwest</p>	<p><a href="https://www.arboday.org/trees/whattree/">https://www.arboday.org/trees/whattree/</a></p>
Wildflower Identification	<p>Wildflower Identification using color of flower and number of petals</p>	<p><a href="http://www.missouriplants.com">http://www.missouriplants.com</a></p>