Resources to Support Independent Science Learning

Webinar Featured Resources

Supporting Students' Science Learning During COVID-19 School Closures
During the COVID-19 crisis, many families are looking for helpful educational resources. There are many opportunities to engage in safe, meaningful science learning in your home and neighborhood. Science teachers, district science coordinators, and other science education leaders are working to provide advice and resources to support families. These resources might be useful to educators, families, and educational leaders.
http://stemteachingtools.org/news/2020/guidance-for-supporting-science-learning-during-covid-19

Learning in Places
Despite the growing awareness of socio-ecological challenges facing humans in the 21st century, science learning still mostly takes place inside the classroom, disconnected from the natural world. The University of Washington Bothell Goodlad Institute for Educational Renewal, Northwestern University School of Education and Social Policy, Tilth Alliance and Seattle Public Schools are partnering to change this status quo and create more culturally and community relevant, field-based learning opportunities for students. Funded by a $2.9 million grant from the National Science Foundation, the project will build outdoor learning gardens and draw upon local communities and green spaces at several Seattle schools while developing a robust curriculum for K-3 educators to engage students in complex ecological reasoning and decision-making.
http://learninginplaces.org/   http://learninginplaces.org/for-families/

NGSS Phenomena-Virtual Science Learning
How to leverage student engagement with everyday phenomena.
https://www.ngssphenomena.com/virtual-science-education

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Playful learning in everyday places during the COVID-19 crisis—and beyond
Article that describes Playful learning activities for home and community learning.
https://www.brookings.edu/blog/education-plus-development/2020/04/07/playful-learning-in-everyday-spaces-during-the-covid-19-crisis-and-beyond/

Earth School
30 Quests for students around the world to celebrate, explore and connect with nature.
https://ed.ted.com/earth-school

Ifixit: The Free Repair Manual
iFixit is a wiki-based site that teaches people how to fix almost anything. Anyone can create a repair manual for a device, and anyone can also edit the existing set of manuals to improve them. Our site empowers individuals to share their technical knowledge with the rest of the world.
https://www.ifixit.com/

Repair Cafe
Repair Cafés are free meeting places and they're all about repairing things (together). In the place where a Repair Café is located, you'll find tools and materials to help you make any repairs you need. On clothes, furniture, electrical appliances, bicycles, crockery, appliances, toys, et cetera. You'll also find expert volunteers, with repair skills in all kinds of fields.
https://repaircafe.org/en/about/

Scitable
Scitable, created by NatureEducation, is an online collaborative space for science learning. Visitors to the site can browse or search through science articles and ebooks, ask experts science-related questions, build an online classroom, or even share their own content. Materials on the site are focused on the life sciences, but there are also numerous resources that can help learners start or accelerate a career in science.
https://www.nature.com/scitable/

Zooniverse
The Zooniverse enables everyone to take part in real cutting edge research in many fields across the sciences, humanities, and more. The Zooniverse creates opportunities for you to unlock answers and contribute to real discoveries.
https://www.zooniverse.org/

Scistarter
SciStarter is an online community dedicated to improving the citizen science experience for project managers and participants. 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. SciStarter also supports researchers in managing projects, including best practices for engaging participant partners.
https://scistarter.org/citizen-science

Global Connections

Touchable Earth
Touchable Earth is the first app where kids teach kids about the world. Taught entirely by school age children in short videos, Touchable Earth promotes tolerance for gender, culture, and identity.

https://www.touchableearth.org/

Service Space
ServiceSpace is an organization run entirely by volunteers. We leverage technology to encourage everyday people around the world to do small acts of service. Our aim is to ignite the fundamental generosity in ourselves and others, creating both inner and outer transformation.
https://www.servicespace.org/

Global Oneness Project
Welcome to the Global Oneness Project. We believe that stories play a powerful role in education. Founded in 2006, as an initiative of Kalliopeia Foundation, we bring the world's cultures alive in the classroom using stories as a pedagogical tool for growing minds. Committed to the exploration of cultural, environmental, and social issues, we offer a rich library of multimedia stories comprised of award-winning films, photo essays, and articles. Companion curriculum and discussion guides are also available.
https://www.globalonenessproject.org/about-project

UnSchool Post Disposable Activation Toolkit
Join the global movement to disrupt disposability and redesign everything so that we can move to #postdisposable future. This free activation kit is for individuals wanting to activate change in their own lives and their communities.
https://online.unschools.co/courses/post-disposable-activation-kit

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More Systems Thinking Resources to Expand Your Thinking

The Value of Systems Thinking (Video)
https://www.youtube.com/watch?v=Fo3ndxVOZEo&disable_polymer=true

Tools for Systems Thinkers (full article)
https://medium.com/disruptive-design/tools-for-systems-thinkers-the-6-fundamental-concepts-of-systems-thinking-379cdac3dc6a

Systems Thinking: A Little Video About a Big Idea
https://www.youtube.com/watch?v=-sfiReUu3o0