



Science Teaching and Resources During the COVID-19 Pandemic

With schools closing on March 13, 2020, teaching and learning have become drastically different for students, teachers, and parents. Most recently, Governor Jim Justice has issued a “Stay at Home” order and schools are now closed until at least April 30. While social distancing and quarantines have become the new normal, schools all over the state are asking teachers to build the new normal in education for the students. WVSTA and WVDE would like to offer resources to help teachers during this time of crisis. Keep in mind, the best practices we use in our classrooms can also be the best practices we adapt in our online classes - clear communication, consistency, essential content, relationship-tending, and compassion for everyone trying their best during this challenging time in education.

WVSTA and the WVDE are focused on keeping students healthy and fed during this emergency situation. The following is a small list of free resources for teachers during the COVID-19 pandemic.

Please contact Todd.Ensign@FairmontState.edu if you have some resources that should be shared with fellow science teachers.

NSTA

Below is a link to [NGSS@NSTA Classroom Resources](https://ngss.nsta.org/classroom-resources.aspx) website which has resources which may be useful to you at this time. You may use the query on the site to search for resources specific to the grade/s and science topics you teach.

<https://ngss.nsta.org/classroom-resources.aspx>

These classroom resources—over 800 lesson plans, book chapters, videos, simulations, and more—are vetted by **NSTA curators** who recommend ways to adapt them to be more in line with the vision of the NGSS.

NASA's Education Resource Center:

The NASA ERC has been offering educator and student live webinars on CAD and 3D Printing webinar, in addition to several Scratch trainings. The links to register for these trainings can be found in this [document](#), as well as on our regular [workshop calendar](#). If you would like to request a webinar, for educators or students, complete [this form here](#).

The American Museum of Natural History:

The American Museum of Natural History is sharing a lot of online content for teachers and families to use during virus days. That includes the "**OLogy**" science website with lessons on subjects from anthropology to zoology; [online science curriculum collections](#); virtual visits to the museum through its [YouTube channel](#); and massive open, online museum courses delivered through Coursera. <https://www.amnh.org/explore>

AmeriCorps Volunteer Network for Students:

Are you struggling to homeschool your kids and want some help? Are your kids just BORED? Then why not help out a kid in need or sign up for a class teaching hobbies, skills, or kid-friendly activities! I am developing a network to connect students to volunteers to help teach and tutor in subjects that grown-ups may have forgotten over the years. Not everyone remembers how to do algebra or all the specifics of sentence structure, so my goal is to help those adults out by providing their kids with someone to help! If you have a student in need of help or in need of something to occupy them, sign up [here!](#) Oh also, IT'S FREE!

I am also trying to find volunteers to host webinars teaching hobbies and other kid-friendly activities to help keep kids entertained during this stay-at-home order. If you would like to help out, sign up [here!](#)

This is first-come, first-served! Feel free to direct any question to Bobbi Mitchell at bobbi@educationaliance.org

Bobbi Mitchell currently works at the Fairmont State/NASA IV& V ERC.

Earth and Space Science Passport (ESSP)

The ESSP Program participants worked for years on projects that they compiled and presented at WVSTA. The portfolio of those lessons can be found on the website: www.FairmontState.edu/esspassport/

WV Geologic and Economic Survey Geoscience Education resources can be found at the West Virginia Geological and Economic Survey website. These activities were developed during the RockCamp Program. Many were teacher developed and teacher tested! <http://www.wvgs.wvnet.edu/www/geoeduc/geoeduc.htm>



NEED (National Energy Education Development)

NEED is closely monitoring the situation with COVID-19. Ensuring the health and safety of our people is important to The NEED Project, and we will update workshops and events accordingly. You can find [distance learning resources here](#), and find [status changes to NEED workshops/events here](#). Please visit the website <https://www.need.org/> for more resources and updates. Utility providers, STEM organizations, professional societies, school districts, if you are looking for a partner to help provide energy lessons for teachers, students and families, [contact us here](#), we have some great ideas.



Climate Change Teacher Workshop a Success

The February 29, 2020 Climate Change Teacher Workshop was a partnership between West Virginia University, Fairmont State University's NASA IV&V Education Resource Center, and the West Virginia Space Grant Consortium. Because the most empowering way to combat Climate Change is to talk about it, the goals of this workshop were not only providing hands-on learning activities but also to improve teachers' confidence when engaging in conversations related to climate change with their students.

In addition to the debut of WVU Planetarium's (<https://planetarium.wvu.edu/>) newest, free- to- watch show "Dynamic Earth", thirteen of West Virginia's teachers investigated the Carbon Cycle with demonstrations on Ocean Acidification, NOAA's Carbon Cycle Journey Game and Stabilization Wedges Game and GLOBE protocols on Land Cover, Trees, and Biomass. The group also heard from WV Climate Action's (<https://www.wvclimateaction.org/>) Sandra Fallon regarding the "Week of West Virginia Climate Action" that took place September 20 - 27, 2019, and they also heard from WV Climate Action and engaged in a Q&A session with [House of Delegate Evan Hansen](#).

Another debut occurred during lunch with the reveal of the newest [WVSPOT](#) Ambassador presentation- Climate Change in the Mountain State, which [can be requested to take place in your classroom!](#) Complementing this presentation was the "Greenhouse Gas Boogie" demonstrated by Tom Rodd, who also presented numerous impactful lessons and demonstrations from the Hands-On Learning Program Manual "[Kitchen Klimate Science](#)" prepared by Friends of Blackwater's Allegheny Highlands Climate Change Impact Initiative.

The quest is on for these teachers to find meaningful and creative ways to not only educate their communities on Climate Change but also construct an action plan for stabilizing climate change within their community. Hear from these amazing teachers, who will be sharing their action plans and experiences at the WVSTA 2020 at the Lakeview Conference Center.

VEX State Tournaments Held at Fairmont State University

Fairmont State University's College of Science and Technology with the NASA's Independent Verification & Validation (IV&V) Program Education Resource Center (ERC), hosted a series of VEX Robotics tournaments for elementary through college students at the Falcon Center. Events were held on Friday, Saturday and Sunday, March 6-8, 2020.

West Virginia's largest robotics weekend in Fairmont hosted five tournaments held in the span of three days. The 4th Annual WV VEX University Qualifier took place on March 6, from 12-8 p.m., welcoming teams from the entire eastern seaboard to participate in a "VRC (VEX Robotics Competition) Tower Takeover." Saturday March 7, from 9-4 p.m., was the West Virginia 2020 VEX Middle and High School State Championship competitions with the same theme.

Finally, on Sunday March 8, from 9-4 p.m., the West Virginia 2020 VEX IQ Elementary and Middle School State Championships competed for the "Squared Away" title. Overall the weekend's tournaments featured over 200 teams from across WV with over 1,000 students participating. These events were all free and open to the public, with the elimination matches taking place from 1-4 p.m.

The WV Robotics Alliance, located at NASA's IV&V Program, supports competitions, off-season events and training for 13 unique robotics competitions including FIRST Robotics, VEX, Skills USA, REC Foundation AerialDrone, World Robot Olympiad, and Zero Robotics.

For more information about NASA IV&V's role with the WV Robotics Alliance, please visit: <https://www.nasa.gov/centers/ivv/education/educators.html>.

For more information about the VEX U, VRC, or VEX IQ events, please contact Todd.Ensign@FairmontState.edu or 304-685-3146.

Earth Day Celebrates 50 Years!



The following article is taken from the official Earth Day website at <https://www.earthday.org/earth-day-2020/> Please visit the website for more ideas on how to join the virtual celebration of the 50th anniversary of Earth Day.

EARTH DAY 2020 THEME:

CLIMATE ACTION

The enormous challenges — but also the vast opportunities — of acting on climate change have distinguished the issue as the most pressing topic for the 50th anniversary. Climate change represents the biggest challenge to the future of humanity and the life-support systems that make our world habitable.

At the end of 2020, nations will be expected to increase their national commitments to the 2015 Paris Agreement on climate change. The time is now for citizens to call for greater global ambition to tackle our climate crisis. Unless every country in the world steps up — and steps up with urgency and ambition — we are consigning current and future generations to a dangerous future.

Earth Day 2020 will be far more than a day. It must be a historic moment when citizens of the world rise up in a united call for the creativity, innovation, ambition, and bravery that we need to meet our climate crisis and seize the enormous opportunities of a zero-carbon future.

Looking Ahead...



West Virginia Science Teachers Association's annual conference will be held October 29-31st at Lakeview Resort in Morgantown, WV and our theme is Looking to the Future.

Registration:

- Standard Attendee Registration will be \$130 Early Bird pricing until 9/30; it increases to \$150 until 10/18 when online registration closes. On-Site registration will be \$165

- Full-Time Students and retired educators will be \$105 Early Bird pricing till 9/30; it increases to \$130 until 10/18 when registration closes and remains the same for on-site.
- Vendor registration is \$230 Early Bird pricing until 9/30; it increases to \$250 until registration closes 10/18. There is NO on-site registration for vendors.
- Additional Vendor Representatives are only for the 2nd+ vendor reps. working the booth and costs \$150 until registration closes 10/18. There is no on-site registration for vendors.
- Non-Profit Vendors are \$150 until 10/18. There is no on-site registration for vendors.

Additional Items:

- A Pre-Conference Session will be offered on Thursday afternoon prior to the conference and costs \$20/person. The topic is TBD.
- Annual WVSTA T-shirt will be sold in advance for \$20. This will be a black long-sleeve 50/50 and have this year's logo and theme.
- Additional Banquet Tickets are sold for \$40/ea. and are for those NOT registered for the conference, but want to hear the keynote speakers and enjoy the grand banquet.
- Field Trips are often free, but some, such as the Field Trip with Dr. Bob costs \$20 to cover the cost of the bus.
- Extra tables for vendors are \$125/ea.

Sponsorships:

- Name Badge Holders \$750.00
- Break Sponsorship \$250.00
- Conference Bags \$850.00
- Back Cover of the Conference Program \$350.00
- Inside Cover of Program \$250.00

Conference Scholarships

Pat Obenauf Scholarship honors the first president and executive director of the West Virginia Science Teachers Association. Teachers and pre-service teachers are encouraged to apply for the Dr. Pat Obenauf Scholarship. Dr. Obenauf was a leading supporter of science education for a long time. WVSTA would not be here without her guidance over decades. To share her love for science education with others, this scholarship will pay the registration for one teacher and one pre-service teacher. To apply for this scholarship, answer the following:

- why you want to attend the conference
- how you think it will help in your classroom
- how you will share your knowledge gained at the conference with others.

Send this via email to Linda Fonner (lfonner@suddenlink.net).

Other scholarships will be announced soon. Please watch the WVSTA website for more details

Want to see your classroom on the WVSTA Instagram? Have some great ideas for labs or pictures of great things you or your students have found or seen? Please email Angela McKeen at the following email address with your pictures or ideas. We want to focus on YOU.



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