***Elementary and Middle School-Friday, Sept 24***

***WELCOME 9:30 am, MORNING SESSION 9:45-11:00;***

***LUNCH 11:00-11:35; AFTERNOON SESSION 11:45-1:00; Depart***

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| **SESSION** | **Presenter** |
| **Welcome 9:30** | **Caroline Williamson**  **Student Engagement Coordinator**  Join Zoom Meeting:  <https://us06web.zoom.us/j/84293839394?pwd=REg0ckRTWnBwczBvQW5HRXY3M3ZOQT09>  Meeting ID: 842 9383 9394  Passcode: 256223  [cwilliamson@wresa.org](mailto:cwilliamson@wresa.org)  828-734-1183 |
| **Investigating Invertebrates** – **Morning Only**  Students learn about some of the great research that happens in the park as they help the Smokies’ rangers identify terrestrial macro-invertebrates to the taxonomic Order level in our virtual ‘lab’. | **Rhonda Wise, Lead Park Ranger**  **Resource Education**  **Great Smoky Mountains National Park**  828-497-1907   |  | | --- | |  | | Fri Sep 24, 2021 9:45am – 11am  Eastern Time - New York | | |  | | --- | | Join with Google Meet | |  | [meet.google.com/yih-hnsh-khf](https://meet.google.com/yih-hnsh-khf?hs=224) | |  |  | |  | Join by phone | |  | (US) [+1 484-466-9406](tel:+1-484-466-9406;547181256)  (PIN: 547181256) | | Join with Google Meet | |  | [meet.google.com/yih-hnsh-khf](https://meet.google.com/yih-hnsh-khf?hs=224) | |  |  | |  | Join by phone | |  | (US) [+1 484-466-9406](tel:+1-484-466-9406;547181256) (PIN: 547181256) | |  |  | |
| **Climate Changers! (Morning Only)**  Climate change is the biggest challenge facing our world. The STEM fields not only help us to understand what this means but to combat it too! Jump in for an upbeat discussion as we highlight different STEM careers making a difference, and brainstorm what new jobs might exist in the future. | **Paige Engelbrektsson (Morning Only)**  **Nature Center Education Specialist**  **Highlands Biological Foundation**  Join Zoom Meeting <https://us02web.zoom.us/j/85465262907?pwd=ejVPYVZpZ0RMQldQKzNIUWZKTVRGQT09>  Meeting ID: 854 6526 2907 Passcode: 962321  paige@highlandsbiological.org  828-526-2623 |
| **James Webb Space Telescope (Afternoon Only)**  **Exploring the Universe with the James Webb Space Telescope**  Description: Students will learn about the James Webb Space Telescope which is scheduled to launch at the end of October. We will explore the concepts of an expanding universe and the "life cycles" of Stars. | **Randi Neff (Afternoon Only)**  [Smoky Mountain STEM Collaborative](https://www.southwesterncc.edu/STEM)  Project Coordinator  Join Zoom Meeting: <https://us02web.zoom.us/j/5391962423?pwd=d3RyNENYOEVRdDNod0hwdEF1czFqdz09>  Meeting ID: 539 196 2423 Passcode: vN4cmR |
| ***Citizen Science (Middle School Only)***  **Wild Sourdough: The Microbes of Baking**  Fascinated by chemistry or love to bake? Participate in NC State University's Wild Sourdough Citizen Science Project! Participants will learn about the microbes that help in the baking process as well as the fascinating history of sourdough bread. Each student will create their own sourdough starter, learn how to "feed" it, and how to submit important data about it to research scientists who are working to uncover more of the secret world of microbes. We will also explore historical, cultural, and career connections related to fermentation and food sciences. | **James Carter**  **The Science House, NC State University**  **College of Sciences**  **Assistant Director and STEM Specialist**  Join Zoom Meeting **AM and PM** <https://ncsu.zoom.us/j/5850960612?pwd=cEpvMFJ4RnpyU05vbnB0QTdvVzRDUT09>  Meeting ID: 585 096 0612 Passcode: 174820 |
| **PARI-For Space**- **Space Technology, Exploration & Astrophysics!**  Computer programming and software engineering for space! Join us for an interactive platform to explore different careers that relate to space science. | ***Timothy DeLisle-PARI***  **Pisgah Astronomical Research Institute**  [www.pari.edu](http://www.pari.edu/)  **Morning Session**  Join Zoom Meeting <https://us02web.zoom.us/j/81359896973?pwd=NEZUbms3K3ZOajRMbXNSNVRUbm5kUT09> Meeting ID: 813 5989 6973 Passcode: 279676  **Afternoon Session**  ***Melanie Crowson-PARI***  Join Zoom Meeting <https://us02web.zoom.us/j/84508774313?pwd=MXZxM0ZXaElNN2hqdGtNcVNjckhudz09>  Meeting ID: 845 0877 4313 Passcode: 952094 |
| **Tall Tower Challenge**  The "Tall Tower Challenge" explores the design of tall structures such as skyscrapers and telecommunication towers. Prior to the engineering challenge, students will learn about the engineering design process and investigate shapes that will support the most weight. Then, students will work in teams to engineer the tallest tower they can build using just straws, pipe cleaners, and paperclips. The tower must be strong enough to support the weight of a golf ball for two minutes. | **Judi Donofrio - Outreach Specialist/Instructor**    **K-8 After-School Programs and Camps**  **Morning Session**  Join Meeting Link:  <https://meet.google.com/rxp-ebaa-ocf?hs=122&authuser=0>  **Afternoon Session**  Join Meeting Link:  [meet.google.com/kxt-ztxi-izr](https://meet.google.com/kxt-ztxi-izr?hs=224)  judi.donofrio@zaniaclearning.com  630-335-0001 |
| **Exploring Chemical Reactions -** The workshop will provide a series of chemical reactions to help students understand the signs of a chemical reaction. Reactions will be produced in my classroom. Reactions to be included are elephant's toothpaste, production of a poisonous gas, and several more exciting reactions. | **Jim Davis**  **Science Teacher THS**  Join Meeting Link: **AM and PM**  [Davis STEM Workshop Google Meet Link](https://meet.google.com/lookup/gsneqmcgxy)   OR <https://meet.google.com/lookup/gsneqmcgxy> |
| **“Suspend It.” Elementary Only-***Students will be presented with a STEM trade book about the building of the Brooklyn Bridge and then will be given a challenge to construct a suspension bridge with card board tubs, cardboard or paper, string or yarn and tape.* | **Carla Billups, President-NCSLA 2021-2022**  **STEM Coach Buncombe County Schools**  **AM and PM**  Join Zoom Meeting <https://bcsemail.zoom.us/j/84598182344?pwd=c3Q4WXBzWmc4SGN4SkxWMHQwaXR6QT09> Meeting ID: 845 9818 2344 Passcode: 150910  cmbillups12@gmail.com |