

EDUCATOR RESOURCES

Developed by EPA scientists and
available FREE online!



Under the leadership of N.C.
native, Administrator Michael
Regan, U.S. EPA protects human
health and the environment.



www.epa.gov



EPA-RTP's Community Engagement & STEM Education Program (CE-STEM) in N.C. provides:

- Free Online Lesson Plans Developed by EPA-RTP researchers;
- Speakers for K-12 Schools; colleges/universities, and community groups in central N.C.;
- Environmental programs and educator trainings.

Questions? Email us at: Witter.Kelly@epa.gov or
Blackburn.Amandajean@epa.gov

EPA-RTP SPEAKERS BUREAU

A FREE resource for educators in central N.C. to request interactive activities, campus field trips, presentations, science competition judges, and EPA booths at school and community events.

www.epa.gov/rtp-speakers-bureau

Check out EPA's Office of Environmental Education for additional educator resources, grants, and awards.

www.epa.gov/education



Generate: The Game of Energy Choices (9th Grade- Adult)

This game encourages students to develop evidence-based decision-making as they collaborate with team members to select the energy mix for their community. Multiple rounds allow students to work under different constraints that model real-world scenarios. Extensions to the game allow for bringing in components such as mathematics, civics, and economics.

www.epa.gov/climate-research/generate-game-energy-choices

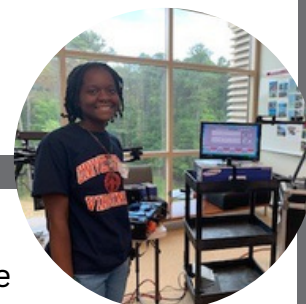


EnviroAtlas: Empowering Tomorrow's Decision Makers

EnviroAtlas is an interactive, web-based ecosystem services mapping tool developed by EPA and our partners. Classroom-ready K-12 materials that adhere to State Science Educational Standards include:

- Exploring Your Watershed (Grades K-6)
- Connecting Ecosystems & Human Health (4th Grade – Adult)
- Building a Greenway: An Environmental Justice Case Study (9th Grade – Adult)
- These materials leverage the EnviroAtlas tool and deliver interactive hands-on learning and introductions to data visualization that can build students' analytical, geospatial, and decision-making skills.

www.epa.gov/enviroatlas/enviroatlas-educational-materials



Build Your Own Particle Sensor

A hands-on learning activity for ages 10-18 that teaches the basics of particulate matter (PM) air pollution, air quality, and electronics while building problem-solving and other STEM skills. Instructions include a materials list, a guide with background information on air quality, and the Arduino code for the sensors.

www.epa.gov/climate-research/build-your-own-particle-sensor



For more information on air sensors, check out EPA's Air Sensors Toolbox:

<https://www.epa.gov/air-sensor-toolbox>

Mobility: The Game of Transportation Choices

This game engages players in decision-making scenarios related to transportation modes (cars, trucks, buses, subway, bikes, walking) and energy (gasoline, electricity). With over 30+ career options including salaries, 12 different commuting schedules for 6 locations, and dozens of unique transportation modes, there are thousands of possible outcomes. Students must stay within budget, calculate their emissions, and then work with their team to reduce their CO2 footprint. The Game will be posted on

www.epa.gov/air-research/air-quality-and-energy-choice-stem-activities-educators in Winter 2023/24.

