

# NETL K-12 STEM EDUCATION AND OUTREACH



# NETL

NATIONAL ENERGY TECHNOLOGY LABORATORY

## BACKGROUND

Science, Technology, Engineering, and Mathematics (STEM) skills are required to be competitive in the global race for energy development, to create and maintain a healthy economy, and to foster innovation and excellence. As a DOE national laboratory, NETL supports that focus through a robust K-12 STEM Education and Outreach Program that provides opportunities for students to investigate STEM topics beyond what is typically provided in their school curricula. Our program improves young people's energy literacy and seeks to inspire the next generation of scientists, engineers and energy researchers. With a team approach that incorporates support from parents, volunteers, and faculty and staff from regional educational institutions, the program features K-12 school visits, support for regional Science Bowl competitions, and many other engaging activities and events.



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[www.NETL.DOE.gov](http://www.NETL.DOE.gov)

## K-12 School Visits

NETL's STEM professionals bring exciting "hands-on, minds-on" programs to regional K-6 elementary classrooms. These stimulating STEM presentations complement schools' existing STEM curricula and cultivate children's thinking skills and develop early positive attitudes about STEM topics.

At the middle and high school level, when students further develop their interest in STEM and start thinking about careers, NETL researchers visit the classroom to discuss more complex energy topics and the multiple, dynamic pathways that can lead to STEM careers.



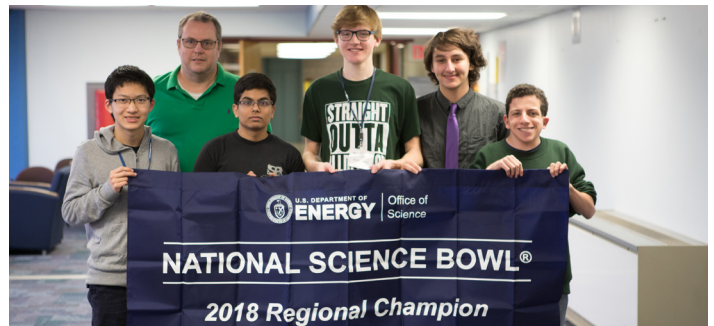
## Teacher Workshops and Seminars

NETL strives to "educate the educator" by providing workshops and seminars for K-12 teachers. These events are held throughout the year, with each one providing different topical material for teachers to take back and execute in their classrooms. These events are convenient for educators from schools in proximity to the NETL campuses in Pittsburgh, PA and Morgantown, WV.



## Science Bowl

NETL organizes regional Science Bowl competitions in Western Pennsylvania and West Virginia. The events feature teams of middle school and high school students in fast-paced, 16-minute, Jeopardy-style competitions. Student teams are tested on questions covering a range of STEM disciplines. Teams face off until a top middle school and high school team is determined representing each state. The top teams advance to the Department of Energy's National Science Bowl competition in Washington, D.C.



## Energy Zone at Pittsburgh's Carnegie Science Center

The NETL Energy Zone exhibit on the fourth floor of Pittsburgh's Carnegie Science Center features hands-on displays and the popular Energy Challenge – a stimulating quiz-style exhibit in a game show format – as part of the Laboratory's effort to provide the public with the most up-to-date energy information available.

## STEM Resources

Visit our education website – <https://www.netl.doe.gov/about/education> for more information on our STEM activities and events. The site includes additional information on our K-12 school visits, the Science Bowl events, Teacher Workshops, as well as links to our STEM Career videos. These on-line videos provide short lively introductions to some of the Laboratory's researchers and the educational path that led them to a career at NETL.

## How to Work with Us

NETL's STEM education and outreach team looks forward to working with you to deliver STEM programs and events. Teachers and educational administrators interested in bringing an NETL team to their school can submit a request via our website at [www.netl.doe.gov/education](http://www.netl.doe.gov/education). Requests are filled on a first-come, first-served basis, with priority assigned to schools that have a large percentage of students who are considered at-risk or who are typically underserved or underrepresented in STEM careers.

## Contact

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