

# **K-12 STEM Education Programs**

he mission of the K-12 STEM education program is to build a future STEM workforce; positively impact students, educators and families in our community and region; and empower employees to become science, technology, engineering and math role models and mentors.

#### **STEM SCHOLARS**

The INL STEM Scholars program is a weeklong summer learning opportunity for students in grades one through 12. Each year focuses on an INL missionaligned research question and highlights the scientific breakthroughs at the lab. This program builds a STEM identity for our students through experiential learning and creative problem-solving.

# FAMILY NUCLEAR SCIENCE NIGHT

Each October, INL celebrates Nuclear Science Week. As part of this celebration, the lab hosts a community event with activities, booths and presentations to educate students and families about nuclear energy and INL research.

# BRIGHT FUTURE IN ENERGY SCHOLARSHIP

INL's Bright Future in Energy Scholarship competition awards \$25,000, provided by Battelle Energy Alliance, in scholarships each year to 11th and 12th grade students interested in pursuing a postsecondary education and career focused on energy solutions or securing our nation's critical infrastructure.

### **STEM AMBASSADORS**

Our ambassadors are INL employees who bring their STEM experience to schools and become role models for students of all ages.

#### STEM SPECIAL FORCES

STEM Special Forces expands on our STEM Ambassadors program that includes a new team of dedicated specialists with increased resources, funding and support to send INL researchers and representatives to share their science with the public. The team creates an immersive learning experience focused on their area of expertise.

### **INL FUTURE CORPS**

The Future Corps program prepares students for careers in STEM-adjacent positions through career technical education and work-based learning programs. INL hosts students for paid summer internships providing real-world work experience in trades, crafts and operations.

## HIGH SCHOOL SCIENCE AND ENGINEERING PROGRAM

INL offers paid summer internships for high school students pursuing postsecondary educations and careers in STEM fields. Based on their interests



# OUR STATEWIDE IMPACT FY-24



SCHOLARSHIPS AND GRANTS \$320K





IMPACTED
37,000 STUDENTS
856 EDUCATORS
12,500 PARENTS

TOTAL INCREASE OF 30% OVER FY-22



50,200

### FOR MORE INFORMATION

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and academic experience, students are placed with INL mentors across the laboratory.

# NUCLEAR SCIENCE TRAILER

INL's STEM trailer is a mobile, interactive space with hands-on demonstrations for students to explore nuclear science concepts. INL activates this trailer at a wide range of laboratory and community events throughout the region.

### **STEM EDUCATION GRANTS**

Funding for INL's STEM grants is provided by Battelle Energy Alliance. Over the past decade, INL has awarded nearly \$5 million in grants to support STEM education. Applications open Nov. 1 each year and are awarded in the spring. A review of grant impact is required.

### STEM OUTREACH

We partner with schools and informal educators on a variety of community STEM events, career fairs, classroom demonstrations and workshops. Our STEM education kits deliver hands-on learning experiences to thousands of underrepresented students in rural and remote communities each year.

# COMPUTER SCIENCE AND CYBERSECURITY

INL hosts community events and hands-on workshops in coding, robotics, data science and cybersecurity to empower students, build their confidence in computer science and cybersecurity and prepare them for future opportunities. Each summer, INL hosts both introductory and advanced cybersecurity camps for middle school and high school students, providing them with a comprehensive education in cybersecurity concepts.

#### **MY AMAZING FUTURE**

Each year, INL gathers nearly 300 eighth-grade students to see what their future could hold: potential careers in STEM. At a time when there is a growing need for STEM professionals fields, interaction with researchers, engineers and scientists at INL inspires them to pursue a STEM education and career pathway.

### **EARTH DAY**

Every Earth Day, INL partners with local and national organizations, as well as other Department of Energy national laboratories, to educate the public about the lab's work in developing energy solutions. This celebration also highlights INL's commitment to environmental stewardship and honors the rich cultural heritage of the Shoshone-Bannock tribes. Each year, INL and the Shoshone-Bannock tribes come together to visit the ancestral homelands, fostering a deep connection with the land and its history. The day's events culminate in a vibrant dancing celebration, symbolizing unity, respect and our shared dedication to protecting the Earth for future generations.

### **SCIENCE BOWL**

Since 1991, INL has hosted the Eastern Idaho Science

Bowl in partnership with the Department of Energy Office of Science Workforce Development for Teachers and Scientists. This annual tournament encourages middle and high school students to excel in science and math and pursue careers in those fields.

#### **RURAL STEM**

INL launched a network of rural schools from around southeast Idaho that provides rural and remote communities with scholarships and grants, STEM learning materials, community STEM nights, and more. Members include rural and remote school districts from around the state of Idaho, many of which are engaging with INL for the first time.

#### **INNOVATE WITH AI**

INL's vision is to leverage artificial intelligence (AI) and machine learning (ML) to gain new research insights and enhance its core research capabilities, including nuclear energy, advanced scientific computing, national security, emergency response and more. To support this vision, INL's Innovate with Al program is an exciting initiative that introduces students from elementary to high school to the fascinating world of AI with hands-on activities

Battelle Energy Alliance manages INL for the U.S. Department of Energy's Office of Nuclear Energy.