



FINGER LAKES (FLX) STEM HUB

“The Catalyst for STEM Collaborations in the Finger Lakes”

ENDORSEMENTS AND SUCCESSES

INTERNATIONAL RECOGNITION

“The Finger Lakes STEM Hub was selected in a highly competitive process in 2019 to become a member of the STEM Learning Ecosystem Community of Practice, a network of global ecosystems working to build meaningful connections among community partners to prepare students for the opportunities and challenges of the future.”

The SLECoP was built on the fundamental belief that learning happens everywhere, not just in traditional classrooms. Consequently, ecosystems are made up of partners representing K-12 public and private education, business and industry, after-school providers, non-profits, STEM-rich institutions, government, and philanthropy.

ENDORSEMENT BY SUNY

The FLX STEM Hub has grown to a sophisticated collaborative with clear goals and objectives and a sustainability plan that will guide the Hub into the next decade.

ENDORSEMENTS BY THE HUB’S NETWORK MEMBERS

Finger Lakes Institute (FLI): The FLX STEM Hub provides a unique perspective of how STEM supports studying our environment and specifically, emerging environmental issues.
Greater Rochester After School Alliance (GRASA): We acknowledge the FLX STEM Hub and the important work it does bringing together the community around STEM initiatives and opportunities.

Honeoye Falls-Lima Central School District (HFL): The partnership has provided multiple opportunities to expose our students and teachers to the importance of STEM education.

Phelps Library: The FLX STEM Hub has significantly contributed to making our region a locus of experimentation, creativity, and collaboration filled with regional STEM leaders.

Rochester Museum & Science Center (RMSC): There would not have been any other way to meet and get to know people from as many companies and organizations, relationships that have helped to jump start collaborations.

Optimax Systems: The FLX STEM Hub has proven itself as an effective catalyst for collaborations across all facets of STEM learning in the Finger Lakes.

Seneca Waterways Council (BSA): We have partnered with a number of agencies and organizations to provide special programs for Scouts and Explorers as a direct result of the networking opportunities.

Monroe Community College (MCC): We are invested in the Hub's success as partners that provide cash and in-kind support to the Hub's operations and direct programs.

WXXI: We found partners and created collaborations networking with STEM Hub members.

Rochester Engineering Society (RES): Networking, as delivered by the FLX STEM Hub, has been the most valuable connectivity-path for my STEM career.

EXAMPLES OF SUCCESSFUL COLLABORATIONS THROUGH 2019

HOBART AND WILLIAM SMITH COLLEGES FINGER LAKES INSTITUTE (FLI)

- Siemens Industry hosted, provided financial support and expertise for its Youth Climate Summit
- RIT senior design student designed sustainable packaging products to house STEM materials.
- Developed a stream monitoring program for Phelps Library's summer STEM Explorers.
- WXXI and Delta Environmental developed a series of elementary teacher workshops with water focused activities.
- NYS Department of Environmental Conservation (NYS DEC) has provided a number of professional learning opportunities for FLI.

GREATER ROCHESTER AFTER SCHOOL ALLIANCE (GRASA)

- Partnered with Boy and Girl Scout Councils and the Boys and Girls Club on a Youth Technology Challenge through an AT&T grant to the Hub.
- Formed an informal STEM network for Out of School Time (OST) providers

PHELPS LIBRARY

- Collaborated on \$2 million NSF grant with RMSC and Terra Science and Education to study makerspace activities to design and develop science fair projects.
- Wayne-Finger Lakes BOCES P-Tech students worked on library and community projects while immersed in STEAM and learning technical skills.
- Makerspace Rochester collaborated on a number of activities including FLX Maker Fest, Mini Maker Faire FIRST Robotics and Finger Lakes Digital Inclusion
- Presented a Citizen Science program with WXXI and NYS DEC
- FLI trained library staff and conducted field trips on the health of our waterways.

ROCHESTER MUSEUM & SCIENCE CENTER (RMSC)

- Submitted a \$2 million proposal to NSF with Hub network members to connect Maker Spaces and Science Fairs
- Provides finance and grant administration services and in-kind support to the Hub.
- Participated in AT&T grant to the Hub with Boy Scouts Exploring program and RCSD to expose students to industry careers in STEM.

OPTIMAX SYSTEMS

- Provided educators with several one-day hands on, professional development program on optics manufacturing for the Hub's Professional Learning Series
- Hosts a Boy Scout sponsored Explorer post and serves on the Council Exploring Committee
- Participated in Maker Fairs and Science Exploration Days, made youth optics presentations at RMSC; and provided tours to middle school students attending STEM and STEAM camps
- Is a Partner of the FLX STEM Hub by financially supporting its operation.

SENECA WATERWAYS COUNCIL BSA EXPLORING PROGRAM

- Organized a special Explorer post to educate inner city youth on STEM career opportunities with RMSC and RCSD through an AT&T grant to the Hub.
- Participated in a Tech Challenge with GRASA, Girl Scouts of Western NY and Boys and Girls Club to teach younger students about design, programming, manufacturing, and electricity through AT&T grant to the Hub.
- Partnering with FLI and NYS DEC to identify opportunities for BSA youth to participate in clean waterways initiative.

WXXI PUBLIC BROADCASTING

- Partnered with Delta Environmental and FLI to offer a STEM and Water professional development series for PreK-2 teachers, Open House, and Hands On tables operated by Maker Faire, FLI, RMSC and NYS DEC
- Provides free promotional opportunities for STEM Hub activities
- Hosted Open House attended by 3000 where 5 Hub network members volunteered as exhibitors.
- Secured a national public media station grant, the American Graduate: Getting to Work, to produce a campaign and convene partners interested in the skills gap and connecting next generation workers with training and opportunities with the support of Hub network members.
- Secured a grant to conduct a citizen science outreach with PBS Nature program which offered training to informal educators, librarians, and teachers.

MONROE COMMUNITY COLLEGE (MCC)

- Hub network has been an important avenue to provide awareness and information to the Hub's network membership about community college offerings in STEM careers, job market analyses, as well as skill and training students require to be successful in STEM oriented careers.
- Have hosted two regional forums sponsored by the Hub on the so-called Middle Skills Gap to address the need to build the talent pipeline in STEM.
- Has provided financial and in-kind support to Hub operations.

HONEOYE FALLS-LIMA SCHOOL DISTRICT (HFL)

- Primary school holds annual STEM/STEAM Day for students to learn about careers, participate in makerspace activities, perform hands on experiments with electronic and mechanical products and generate simple computer programs using Hub network volunteers.
- STEM Hub network volunteers support project-based learning experience for middle schoolers.