



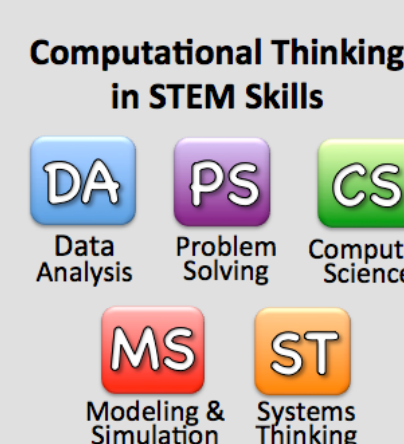
NORTHWESTERN  
UNIVERSITY

# The Office of STEM Education Partnerships (OSEP)

Connecting K-12 teachers and students to the world-class science, technology, engineering, and math resources of Northwestern University and beyond

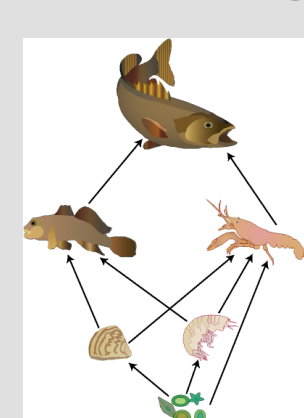
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## Curriculum Development



### Computational Thinking in STEM

Building CT skills by embedding activities across the STEM curriculum

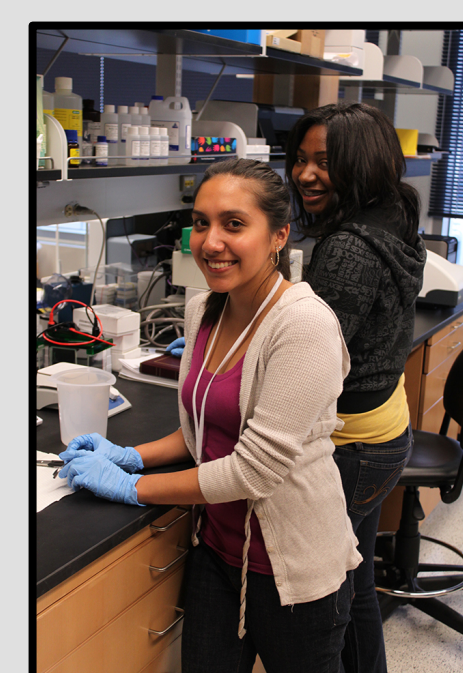


### EcoCasting

Investigating threats to aquatic ecosystems using computational models



High school lab investigations based on cutting-edge research in cancer & reproductive biology, biomaterials, and genetics

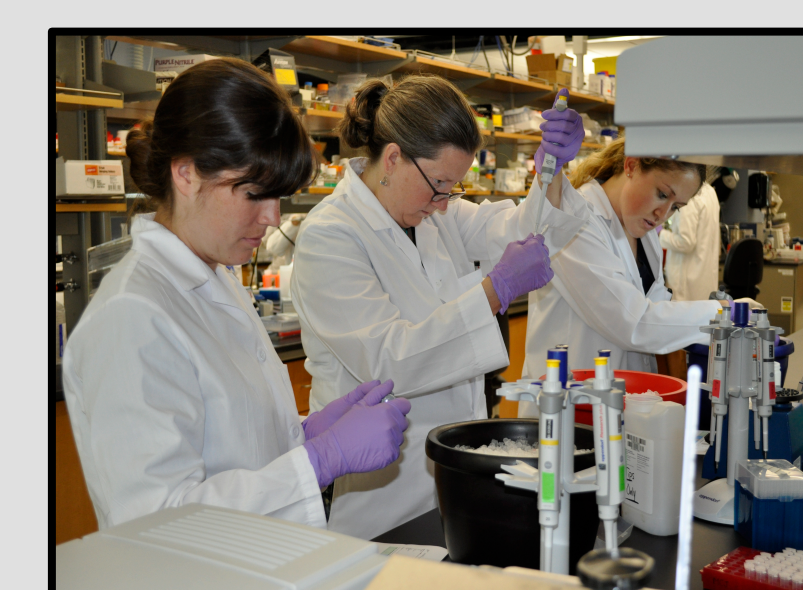


## Teacher Professional Development

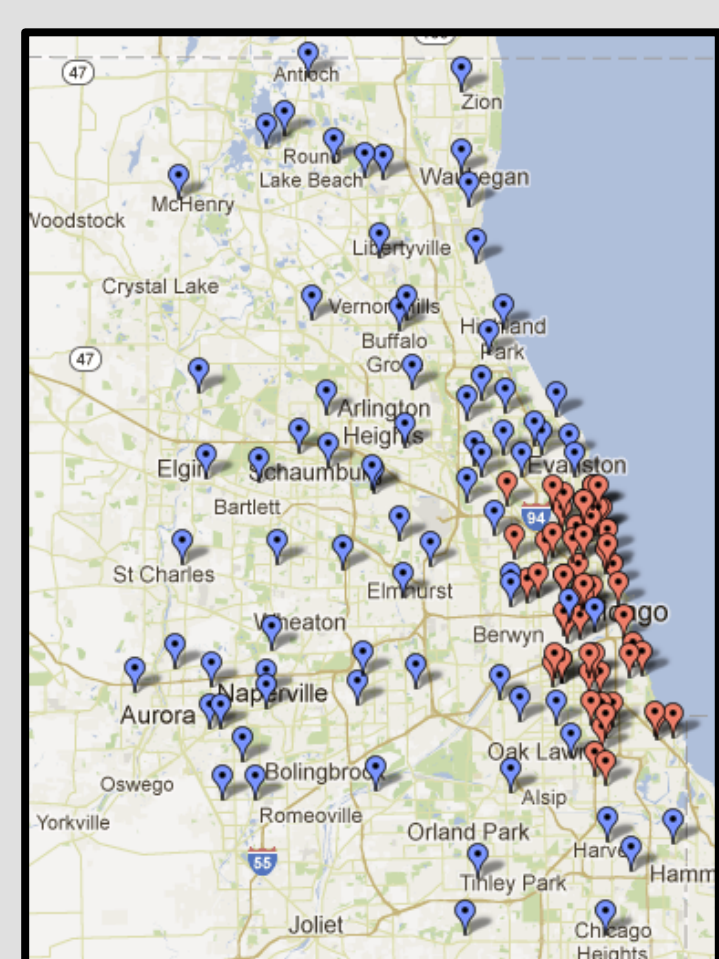
ISTAR@NU

Institute for STEM Teaching and Research at Northwestern University

- Offerings in biotechnology, earth and environmental science, computational thinking & modeling, NGSS scientific practices, and student research programs
- Research & job shadowing experiences for teachers
- Follow up in-classroom coaching
- Lab equipment and technology loaner program



## School Partnerships



- A growing network of 140+ schools
- Full-time partnership coordinator at Evanston Township HS
- Collaboration with Chicago Public Schools, including 5 new STEM high schools
- Support for Biotechnology Center of Excellence at Lindblom Math and Science Academy



## Undergrad & Graduate Programs



- A NSF GK-12 program in partnership with CIERA
- 9 STEM graduate students placed in K-12 classrooms per year
- Curriculum development & science communication skill building



## Corporate Partnerships

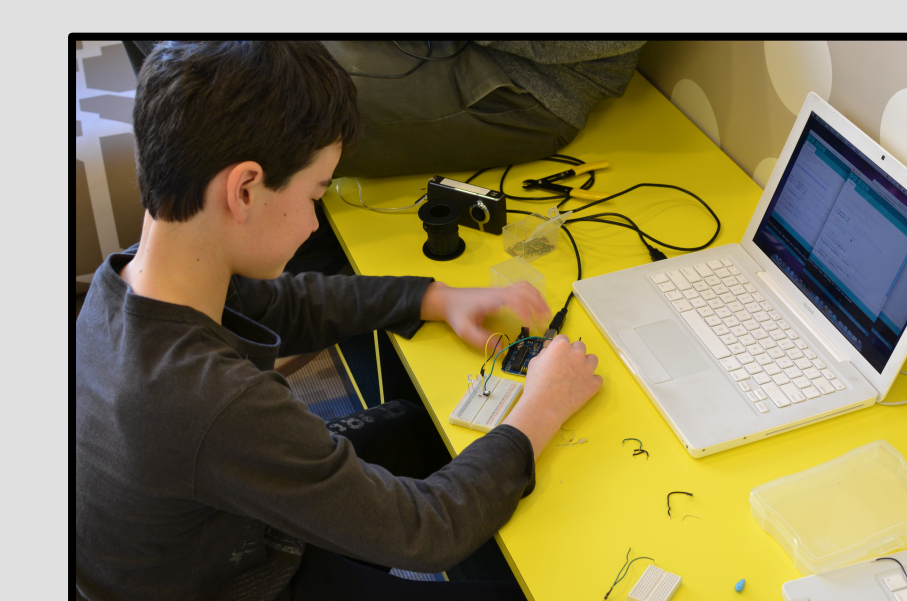
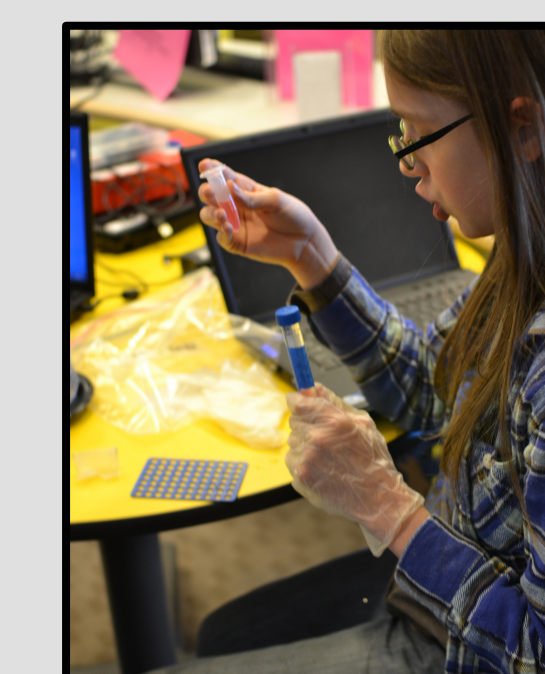
- Facilitating school partnerships and building outreach capacity
- Bringing industry STEM research and career pathways to K-12 students
- Providing unique teacher programs and job shadowing opportunities
- Organizing employee engagement and mentoring programs



## Out-of-School Programs

FUSE

- Out-of-school, interest-driven STEAM drop-in program model
- Targeting teens who may not be interested in STEAM topics
- Sequences of interest-driven challenges including: robotics, e-textiles, electronics, biotechnology, 3-D design, and more!



### Partners and Funders

