

STEM Education: Teacher-Company Partnerships (TCP) in NE TN

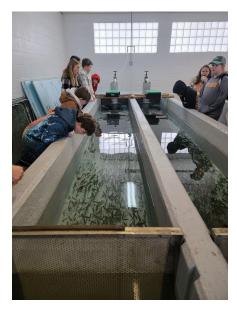
Facilitating Meaningful Collaborations Between Teachers and Employers in STEM Fields in Our Region



Sep 2025-May 2026

Overview

The STEM Education: Teacher-Company Partnerships in NE TN Project is a year-long program led by ETSU's Center of Excellence in STEM Education (CESE) and the Northeast TN STEM Innovation Hub. Started in 2023, the aim is to connect northeast Tennessee educators with the local workforce. The program provides a vehicle for employers to meaningfully give back to and connect with schools, to increase the opportunities for schools to build relationships with employers, and to share real-life applications of students' school-based learning in the contexts of the employers and creators based in this region. Feedback data collected each year informs the project moving forward. See our Website for our impact reports, past partner details, and a flyer.



Structure

Each year, we engage approximately 15-20 educator-employer teams from across the region, composed of elementary and middle school educators paired with an employer local to the school. During the kick-off, in-person dinner meeting each fall, the teams meet each other, hear about the program, and begin to brainstorm their individualized collaborations. During the school year, teams are free to partner in a variety of ways that align with teacher/student needs and the strengths of the employer partner. ETSU's Center of Excellence in STEM Education (CESE) and NE TN STEM Innovation Hub support the teams as needed to build and sustain their partnerships. Finally, teams share the year's activities and outcomes with attendees at our NE TN STEM Innovation Hub's regional meeting each spring.

Students from a TCP partnership visit the Erwin Fish Hatchery in spring 2025

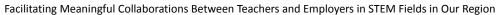
Teams. Typically, we partner up one teacher from a school with a local employer. We can also have more than one teacher from the same school participate. In this case, if the employer is the same for both teachers, each teacher must ensure their class is fully involved, and that student survey data are collected from each class. The same employer may partner with more than one school as well, as their resources allow. Note that non-profit employers are eligible for a stipend of \$500 per teacher partner to support the collaboration.

Approach

We will leverage the teaching and learning expertise of educators (such as *how* to share information about workplace activities with students) with the workforce and technology experiences of industry professionals and employers in northeast Tennessee (what is the *current* technology being used in manufacturing right now? How are medical professionals using math to solve problems? What kinds of jobs are possible in this company?). The program will form teacher-employer teams in any K-8 school topic related to STEM, broadly defined (e.g., math, science, STEM, School Media Specialist/Related Arts, CTE, careers, etc.) with an employer situated within the school's community.



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Educators and employer teams in the 2024-2025 cohort plan their collaborations at the kickoff dinner at Northeast State Community College's TEC building, Sept 2024



Outcomes

Specific aims of the program are to

- Strengthen relationships between schools and employers, which links to goals for schools that are interested in pursuing the TSIN STEM Designation, building up their middle school CTE programs, or hoping to encourage more community involvement at any level
- Create a sustainable network where participants share ways to engage middle school students in applied learning in workplace settings (e.g., discussing manufacturing process using Minecraft; drawing on educators' expertise in teaching and learning to make presentation activities engaging)
- Increase awareness of the job opportunities in northeast Tennessee and existing resources and supports (e.g., CareerQuest; CareerConnect) for students, families, and educators, and
- **Enhance employers' capacity to support** their local schools, teachers, and students through this structured community-building opportunity

Why Participate?

Teachers

- Engage students in learning experiences tied to regional industries and current technology
- Co-facilitate with employer partner interactive activities to highlight ways that students' classroom learning is used in real life (example project)
- Increase awareness of the many pathways to STEM careers with regional employers
- Get support from a STEM professional to support classroom or student projects/activities
- \$500 stipend/materials

Companies/Employers

- Increase awareness of the organization brand before students enter high school
- Identify talented students early
- Create positive brand awareness for the organization
- Strengthen ties with schools in your organization's community
- Flexible time commitment
- Offer staff a way to meaningful share their expertise with students and give back
- *\$500 stipend for non-profit employers



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Rationale

Students are the workforce of the future. Many students who grow up in northeast Tennessee stay in this region. This initiative seeks to cultivate this community strength in order to increase our students' awareness of regional employers, innovative employment opportunities, and various STEM-related fields. We believe there are many pathways to a career in STEM. Engaging students with exciting, hands-on learning experiences from those who are in STEM careers now can begin to illuminate these paths.

Among other things, such experiences increase students' knowledge of what STEM is, what kinds of STEM jobs exist in the region, and can introduce them to STEM roles that will emerge in the future. Students will see a wider variety of opportunities and choices as they move through school and make decisions about their lives. In the broader sense, this partnership project will strengthen ties between students, teachers, schools and employers, to the benefit of everyone involved.

We focus on elementary and middle school educators to pique students' interests in careers early, make important community connections earlier, and build on the momentum of increased funding in this area, such as the state's Career and Technical Education (CTE) in middle school efforts. We may add high school teachers in future years to extend the reach and test out the TCP in this context as well (pending funding).

Requirements of All Participants

- Be open to learning from one another, trying new things
- Teach K-8 school students (for teachers) or employ people who live in one of the <u>NE TN STEM Hub counties</u> (employer partners)
- Attend kick-off in person dinner meeting:
 - Tuesday, Sept 16, 2025, 4:30-6:30pm, TEC Building, Northeast State CC, Blountville, TN
- Collaborate in at least two ways before our Spring 2026 Regional STEM Hub meeting in May
- Attend the <u>Regional STEM Hub meeting</u> on May 12, 2026 and briefly share outcomes
- Complete short feedback survey at program conclusion

HUGE thanks to our funders, who have made this program possible!









Alayna Johnson from Brightridge leads a hands-on demo for students whose class was participating in the 2024-2025 TCP