

Oct 2023-May 2024

[1-page flyer here](#)

## 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. The aim is to connect northeast Tennessee middle school teachers with the northeast Tennessee workforce. The program will provide a vehicle for companies 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. We will gather data from this pilot year on program benefits to students, families, teachers, schools, and employers, with the goal to expand the project in future years.

## Structure

We will engage approximately 15 educator-company teams from across the region. During an in-person workshop in October 2023, these teams will learn from one another, and from facilitators with knowledge of STEM education, workforce development, and existing programs. During the school year, teams will enact a collaboration plan around teacher/student needs, and the strengths of the company partner. ETSU's Center of Excellence in STEM Education (CESE) will support the teams as needed to build their partnership. Finally, teams will share the year's activities and outcomes with attendees at our [Northeast TN STEM Innovation Hub's spring regional meeting at Streamworks on May 16, 2024](#).

## Approach

We will leverage the teaching and learning expertise of educators (such as *how* to share information about workplace activities with 6<sup>th</sup> graders) 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 they using math to solve problems? What kinds of jobs are possible in this company?). The program will team up one or more teachers who work with middle school students (e.g., math, science, STEM, School Media Specialist/Related Arts, etc.) with an employer situated within the school's community and the teams will make an individualized plan that spans the school year to lay the groundwork for long-term partnerships.

## Outcomes

Specific outcomes of the program are to

- **strengthen relationships** between schools and companies, which links to goals for schools that are interested in pursuing the TSIN STEM Designation or building up their middle school CTE programs
- **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 aligned to Tennessee standards)
- **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 companies' 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 the company partner interactive activities to highlight ways that students' classroom learning is used in real life
- Increase awareness of regional employers, jobs, technology, opportunities
- Get support from a STEM professional to support classroom or student projects/activities
- Share the many pathways to STEM careers available for students in the region
- Certificate showing 5.5 hours of professional development (Oct 2023 and May 2024 meetings)
- \$500 stipend

### *Companies*

- Increase awareness of the company brand before students enter high school
- Identify talented students early
- Create positive brand awareness for the company
- Strengthen ties with schools in your company's community
- Offer staff a way to meaningfully share their expertise with students and give back

### Rationale

Students are the workforce of the future. Many students who grow up in northeast Tennessee stay in this region. This initiative seeks to seize on the opportunity to increase our students' awareness of regional companies, 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. At a minimum, students will see a wider variety of opportunities and choices as they move through school and make decisions about their future. In the broader sense, this partnership project will strengthen ties between students, teachers, schools and companies, to the benefit of everyone involved. With many existing programs focused on high school, this initiative will target middle school educators to pique students' interests earlier, 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.

### Requirements of All Participants

- Be open to learning from one another, trying new things
- Teach middle school students (for teachers) or work in one of the [NE TN STEM Hub counties](#) (company partner)
- Attend kick-off in person workshop: **Thursday, Oct 19, 2023, 4-6:30pm, Northeast State CC, Blountville, TN**
- Collaborate in at least two ways before May 16, 2024
- Attend the [NE TN STEM Innovation Hub's spring meeting](#) on May 16, 2024, and briefly share outcomes

### [Current counties/school systems participating](#)

#### *Want More STEM Education Supports?*

Check out our [website](#) for more programs and resources, like a [Lending Library](#), [Hub events](#), and [workshops](#).