



Competition Purpose/Goal

According to a new study released by the Tennessee Department of Economic Development in January 2019, the Nashville Metropolitan area has seen a 35% increase in the number of jobs created in the tech services career cluster. Nashville's average annual wages for this industry cluster is \$90,706 is 67% above the metro area's average wage for all industries.

It is estimated that across the United States, 1.8 million tech jobs will go unfilled by 2024. Why? Because not enough students are studying in a tech services related pathway or program of study. While Middle Tennessee has over 125,000 college and university students enrolled each year, only 779 completed a tech related degree in 2017. The demand is outpacing the supply.

Rutherford Works, the economic and workforce development arm of the Rutherford County Chamber of Commerce, is committed to helping students of all ages in Rutherford County get connected to one of our high wage, high demand career opportunities including jobs in the tech sector. As a result, the Rutherford Works Tech Community was established in 2015 to help promote this work with our middle and high schools as well as post-secondary institutions.

The creation of the Sustainable Technology Solutions Competition is a direct result of work by the Rutherford Works Tech Community. The purpose of the competition is to grow interest in tech careers and more specifically to attract non-traditional middle school "tech" students into our high school CTE Networking, Cyber Security and Computer Science Pathways (additional pathways to be added in future) in Rutherford County Schools with the goal of increasing the number of students entering college and career tracks in the fields of Information Technology, Computer Science and Computer Engineering.

Competition Overview

- Each year a new problem will be released for middle school students in Rutherford County to create a sustainable solution, through technology
- A notebook (see Guidelines) will be created and submitted from each team, as well as a video and presentation.
- Each team must have at least 1 teacher as the responsible party
- Teams can be made up of no less than 6 members- there is no maximum. However, please note that each team member must play a specified role in the project
- Each team will be given seed money of \$150 to come up with their solution, teams cannot exceed the funding use of more than \$250 on their solution.
- Points will be awarded for successful completion of tasks
- Each team will be judged on their notebook, video and presentation. ALL team members must have outlined jobs but all do not have to participate in the video or presentation of their team's solution.
- The final top 3 teams will get to present their solution to our panel of sharks who will choose the winning team!



Awards

The Best in Sustainable Technology

- Cash prizes for top 3 teams (\$500, \$250, \$100) prizes to be given to school principals to go towards STEAM focused programs in the school and promote cross over

Additional Awards

- Best Notebook
- Best Video
- Best Presentation
- Most Out of the Box
- Best Problem-Solving Team

Competition Dates to Remember

Registration Day: registration opens on August 12th- team sign-ups are first come first serve and must be completed by October 1st. Limited space- 24 teams only

The Release: A video will be sent to teachers/teams October 1st releasing the problem they must solve for the competition! Begin working!!!!

Submit Projects: November 22nd, Notebooks and videos must be submitted electronically to Regina Ward, rward@rutherfordchamber.org by 5:00 PM. These will be pre-judged before the day of the competition.

Competition Day: December 3rd at Tennessee College of Applied Technology, Smyrna Campus Booth set-up begins at 3:00 pm. Spectators and judging will begin at 5:00 pm.

Guidelines

Five Key Areas Teams Will Be Judged on:

- Theory (process, documentation, identifying the problem)
- Implementation
- Feasibility (cost, technology capability, can this happen in real life?)
- Marketability (presentation, brand awareness)
- Prototyping (optional)

***There are no requirements for coding in this project. However, teams may use software such as:

- Sketch Up
- Onshape (solid works)
- Auto Desk



The Notebook:

- Outline of jobs for students/ teams
- Job titles for each student- based on the industry options
- Notebooks must contain written descriptions (minimum of 4 paragraphs) of each aspect listed under the notebook guideline

Video:

- Videos must be no longer than 3 minutes
- Must express the what, why and how of the team's solution

**videos do not have to be professionally shot and edited, you may use a cell phone for this project.

Presentation:

- Exhibit team: each member of the team must have a defined role at the booth exhibit
- Presentation team: 2 people maximum to present the teams solution to the judges and spectators
- Pitch/Presentation must be no longer than 2 minutes in length
- Create a leave behind piece that includes: problem, solution resolution for judges and spectators
- Use a trifold board to visually present the team and the solution

Notebook Guidelines

Each section listed below is an element that should be properly explained in it's specified section of the notebook that will be turned in for judging.

Creating a Team

- A team/company name must be created
- Roles and responsibilities for each member of the team must be outlined in the notebook
- Recruitment and retention of team members- explain how the team was created for this project
- Team Work Structure: who does what for each section of the project
- Timeline: Plan for project and work space

Brainstorm & Identify the Problem

- Must be within the parameters given
- Identify the Process that happened while identifying the problem
- Why you selected your problem to solve and how you define it



Notebook Guidelines cont.

The Solution

- What was your process for selecting your solution?
- Why did you select your solution?
- What alternative solutions did you rule out (optional)?

Implementation Plan

- Timeline to full implementation (are there multiple phases in your plan or can this happen immediately)
- Resources needed (tools, technology, people)
- Budget breakdown
- Identify any barriers
- What is your final product or solution once implementation is complete

Marketing Plan

- Who is your target audience?
- Vehicles used to market
- How do you measure your success
- Project or product logo
- Branding strategy

Exhibit Pitch

- Must be 1- 2 minute in length
- must explain the problem, solution and why our investors should choose your solution
- Must be ready to answer questions
- Must have a visual component for your exhibit (example: tri-fold poster)

TOP 3 FINALIST ONLY

Presentation Team

- 10 minutes total process
- 2 minutes for presentation
- 8 minutes for questions from judges