



Promising Practice Capture Sheet

School: _____Alcoa High School _____

Rural Suburban Urban

District: _____Alcoa City Schools _____

■ Region: East Tennessee

Practice: _____Safety Lab Video Project_ - STEM _____

Point of Contact: Shawn Kerr _____ CTE/STEM Teacher _____ skerr@alcoaschools.net _____ (865) 982-4631 _____

Name

Title

Email / Phone

Connection to Strategic Plan:

Goals:	Top Half of States on NAEP – 4th and 8th Grade Math and ELA		State Average of 21 Composite ACT		55% of the class of 2020 obtains postsecondary credential
How best practice addresses:					Our world isn't compartmentalized into separate subjects (math, ELA, science, etc.). To attain the jobs of tomorrow, students must have the opportunity to integrate their knowledge into meaningful experiences that will lead to a career path they otherwise might not have considered. When students are given the freedom to make these connections through STEM, they become problem solvers instead of memorizers. Problem solvers are much more equipped to handle real-world situations.
Priority Areas:	Early Foundations	Empower Districts	Support Educators	High School Bridge to Postsecondary	All Means All
How best practice applies:				Encouraging students to explore problem solving strategies and engaging in cross curricular	

				connections.	
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Practices:

- Culture
- Instructional
- Training/PD
- Accountability
- Programmatic
- Policy Change
- Funding
- Other:

Project Specific Indicators:

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The Challenge:

Understanding the Importance of Safety

Students must explain the intended use of safety equipment available in the classroom/lab. (Safe operating procedures of tools and equipment).

Results:

- Increased student achievement results
 - ACT
 - TNReady/EOC/TVAAS
 - NIC
 - EPS
- Decreased remediation and/or subgroup gaps
- Increased student readiness results (non-academic)
- Increased partnerships / alignment
- Increased participation / program growth

The Vision:

Instead of simply reading and memorizing lab safety manuals, students, in cooperative groups, were given the opportunity to create a STEM Lab Safety video to highlight how to operate and maintain STEM lab equipment safely.

Action Steps Taken / Summary of To-Do's:

Students were given a safety manual for tools and equipment in the STEM lab. In small groups, they read and watched online safety videos for each piece of lab equipment. In addition, students were given video editing training using MS Moviemaker software. The groups then divided duties up based on individual strengths and weaknesses (videographer, video editor, script writer, actor, etc.). Students worked cooperatively to create their video safety videos to share not only with their class but with other classes that will use the STEM Lab.

Lessons Learned: *Include advice on start-up and sustainability*

To repeat this classroom activity, I would be sure to include an entire class period of Moviemaker training using a smaller scale video for practice and experience before attempting the full STEM Lab Safety Video Project.

Communications:

Students are able to utilize Google Classroom for communications between group members and the instructor. In addition, group files are able to be stored on the Google Drive to ensure access by all members from anywhere, school or home.

Stakeholder Management:

Students in each group have a personal stake in the success of their project. They are obviously looking to earn a beneficial grade for the project, but they also must learn the material to be successful on the STEM lab safety posttest, or they will not be permitted to use the equipment for future projects. As a group, having pride in their work is priceless to self-esteem and self-accomplishment. Another factor to encourage success is that each group will have their products viewed by their peers outside of class.

Metrics & Measurements:

Baseline Data	Progress to Date	Goals
Students were given a safety lab pretest before beginning their task. Most students scored in the 70 to 80 percent range with a few below 60%.	Students are currently making positive progress toward the goal through experience with the material.	Students will complete the STEM lab safety posttest with 100% accuracy.

Resources:

- How to use Windows LIVE Movie Maker - Easy Tutorial on YouTube: <https://goo.gl/hpoeQH>
- STEM Lab Safety video resources from Mr. Kerr’s School Webpage: <http://goo.gl/WXacV2>
- STEM Lab Safety Pre/Post Test using Google Classroom
- Project Rubric for scoring