

SME SYMPOSIUM JUDGING GUIDELINES

BACKGROUND/INTRODUCTION

- 1) Purpose or problem to solve
 - Is the main point easily identifiable? Is the motivation why this was selected clearly indicated?
- 2) Literature Search/Alternative Designs/Previous Scientific Publications
 - Is the introduction to the question and methods indicated and explored prior to the project? (Do we want to have them explicitly write these? Or just understood in their presentation/poster of their ideas?)
- 3) Project Classification (Prototype, Experiment, Mathematical Method, Engineering Analysis)
 - Why did they choose the modality for the project? Are they doing an engineering prototype? Mathematical Model? Experimental process? (basically, we want to know that they know why and what they are doing)

PROJECT

- 4) Achieved purpose or solves problem
 - From their indicated purpose in the introduction does the student answer the question or expand on the concept? Did the audience member understand the material better than they did prior to viewing the poster/presentation? (This could be indicated by the quality of the questions of audience members, for example)
- 5) Design Process/Scientific Method Applied
 - Was there intent and procedure to their project? Did the participant approach their project in a systematic way with intention? (Basically, was their problem-solving approach a standard way to approach that problem. We think this should also include the strict demonstrations by identifying a problem and why they anticipate their instruction is a good way to show what is going on.)
 - Does the participant indicate that it is a one-time analysis or if it is an experiment does the participant understand that repeatability is necessary for proof of concept?
- 6) Creativity
 - Is this project is novel or expresses known knowledge in a creative way?

PRESENTATION

- 7) Effective Communication and adequate description of project
 - Were there sufficient aides to communicate the ideas and details of the project? (Would someone be able to recreate the setup of their project if they were asked to or is it just words without any visual aides?)
 - Is scientific, mathematical, or technological content explained with enough background for a student with high school proficiency to follow? Is the impact of this project understood?
- 8) Data/Results
 - Was the data presented in an organized way with titled and appropriate font size and colors?
 - Do the participants explain their results and are the results tied back to the purpose of the project?
- 9) Conclusion/Discussion
 - Does the participant understand the scope and limits of their project? If they were to do the project again would they change anything?
- 10) Referenced Work
 - Is there only content created by the participant or are works appropriately cited? (This is intended for recognition of those participants who create their own schematics and figures especially)