**STEM-E Spring 2020 Conference Competition**

**Middle School & High School STEM-E**

**SCHOOL OR COMMUNITY SERVICE PROJECTS**

**General Information and Guidelines**

**www.stem-e.org**

Participation is limited to students in the WNC EdNet region who are members of their school’s STEM-E group. Each student participant or student group must identify a faculty member from the school to provide relevant expertise and serve as the sponsoring teacher for the project. The STEM-E advisor must also approve the application to compete.

The competition will allow students to showcase examples of their best STEM-E -based work. Presentations may be based on work samples from previous school years if they have not been presented previously. Entries in all subject areas and utilizing all technology applications are encouraged. Students should use care in determining which category best suits their project; school or community service projects will be decidedly different from those based on hobbies or special interests.

All projects may be submitted by individuals or student groups.

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The competition will consist of a 20-minute student presentation which should include:

* **Introduction & Demonstration** (10 minutes or less) - Introduce one’s self/group and the topic. What is the context for the work? What were the purposes of the project? Describe why the specific type of technology was chosen for the project, and identify the academic content upon which the project is based. Demonstrate the project utilizing pertinent visual software; the use of PowerPoint is acceptable. Save to a jump drive so that it will be compatible to CCS equipment. Students may provide explanations, if needed.
* **Question and Answer Period** (10 minutes or less) - Allow time for the judges to ask questions about the project.

Presentations will be evaluated by a panel of judges. A copy of the judging rubric will be sent via email to the sponsoring teacher, the presenter, and the STEM sponsor. Students are expected to submit work of exceptional quality and to practice their presentations before the day of the competitions. *See the participant information sheets for specific details.*

Prizes will be awarded to three finalists in each category:

1st place - $125 2nd place - $75.00 3rd place - $50.00

Prizes for group presentations may be divided equally among the members of the group or awarded to the student organization sponsoring the project.

SCHOOL OR COMMUNITY SERVICE PROJECTS

Participant Information

**WNC EdNet STEM-E Competitions**

If you plan to compete, please complete the separate competition entry form and submit it by **March 25, 2020** A committee of judges will meet to determine whether your project meets the guidelines for this category. You will be contacted if the committee finds that your project meets the guidelines for another category more closely.

School or Community Service Projects meet a STEM-E need that your school or community has; teen centers and similar projects do not meet the guidelines. ***For example, your project could be refurbishing computers for students in your school who do not have computers at home, or designing a model which improves humanity or the community-recycling, health fields, environment, through STEM-E***

All projects should be based on STEM-E content (science, technology, engineering, and/or mathematics-entrepreneurship). You will be expected to understand and be able to discuss the science related to your project. ***For example, if you develop a model to improve the environment you will be expected to demonstrate how this will become a catalyst for improvement.*** In addition, you will need to cite your sources of information using APA format. ***In our example, you probably referred to manuals, etc.; these sources must be cited in your technical presentation.***

Review the rubric carefully to be sure that all elements are covered in your project and presentation. Remember that all members of groups must contribute to the project both prior to the competition and during your presentation.

Treat the competition as an opportunity to prepare for college or career interviews by dressing appropriately. Ties and dresses are not required, but you should look professional. Please check with your STEM-E sponsor if you have questions about proper attire.

It is highly advisable to practice your presentation before a group of adult judges prior to the competition. The more you practice, the more poised and confident you will be!

Work closely with your STEM-E sponsor and your teacher-advisor to prepare well. Please feel free to contact me if you have questions. Best wishes!

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**WNC EdNet Student Technology Applications Competition**

**SCHOOL OR COMMUNITY SERVICE PROJECTS**

**Judges’ Rubric**

STUDENT(S): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Criteria** | **1** | **10** | **Value** | **Weight** | **Total Score** |
| **Introduction** | Fails to explain the purpose, context, and reasons for choosing the technology. | Clearly explains purpose, context, and reason for choosing the technology. |  | X 1 |  |
| **Technical**  **Presentation** | Too many technical problems to view the project  Screens are either barren or cluttered. Graphics and special effects interfere with the content.  No graphics, video, audio, 3-D or other enhancements  Technology is uncomplicated and easy to use.  Four or more spelling and grammar errors | Project has no technical issues; runs perfectly  The blend of multi-media elements and content is superior. Strong evidence of style and excitement.  All enhancements are effective and aid in the learning.  Technology is complex and  multi-faceted.  No spelling or grammar errors |  | X 3 |  |
| **Organization** | Sequence of information is not logical or sequential | Sequence of information is logical and clear |  | X2 |  |
| **Citing Information** | No sources are cited or are improperly cited | All sources are acknowledged and properly cited. |  | X2 |  |
| **Creativity** | No evidence of new thought or innovation | Significant evidence of originality and inventiveness. |  | X2 |  |
| **Critical Thinking** | Higher level thinking skills were not used in this project. | Clear evidence of higher level thinking skills. |  | X2 |  |
| **STEM Content**  **Knowledge** | Information is confusing, missing, or incorrect. | All information is clear and correct. |  | X2 |  |
| **Response to Judges’ Questions** | Responses indicate lack of understanding of the project | Responses indicate obvious knowledge and understanding of the project |  | X3 |  |
| **Communication & Delivery** | Some members of the group do not make contributions to the presentation.  Little or no eye contact with judges  Dress is inappropriate for a formal presentation.  Demeanor indicates lack of poise and confidence  Significant oral grammatical errors | All group members contribute equally to the presentation.  Eye contact is maintained throughout the presentation  Dress is appropriate for a formal presentation.  Poised and confident demeanor  No oral grammatical errors. |  | X1 |  |
| **Value & Benefit of the Service** | Very limited amount of time spent providing the service  Few, if any, details about to whom, when, and what service was granted | Significant time spent providing the service  Specific details about to whom, when, and what benefits resulted |  | X2 |  |
| **TOTAL SCORE – POSSIBLE 200 POINTS** | | | | | |

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Judge’s Signature