Pennsylvania Junior Science and Humanities Symposium
SUNDAY, MARCH 20–TUESDAY, MARCH 22, 2016 | Huntingdon, PENNSYLVANIA

Paper Checklist
The research paper should describe original research results.
Applicants wishing to present a paper at PA-JSHS should use this checklist:

ABSTRACT
Six copies of the 175-word abstract must be submitted, with application form.

RESEARCH PAPER
Six copies of the typed final research paper (maximum of twenty pages in length) must be submitted with the application by Friday, February 26, 2016, and will be used during the judging process.
The outline must include:
- Cover page with title, student name, school name, and school address
- Abstract
- Acknowledgment of assistance
- Table of contents, list of tables, and/or list of figures
- Introduction — should include purpose, hypotheses, and review of literature
- Materials
- Methods and procedures
- Results and findings
- Discussion and conclusions
- References
- Appendices (only if absolutely necessary)
Please refer to the national JSHS Guidelines for Preparation and Presentation of Student Research.

ORAL PRESENTATION
Length of presentation is 12 minutes with 6 additional minutes for questions. This time limit will be strictly monitored. Audiovisual equipment available includes:
- Computer with PowerPoint
- LCD Projector (note: highest resolution is 800 x 600)
There are limitations on the use of computers and projection panels. Contact the director for more detailed information prior to the symposium.

JUDGING
The JSHS judging team includes individuals who hold either a PhD or equivalent experience in the general fields of research that are represented by the student presenters. Judges also are selected for their interest in encouraging the students’ interests and future development in the sciences, engineering, or mathematics. The judges review the student papers and presentations as follows:
All of the written reports (e.g., abstract and paper) are read. The paper is used as supporting documentation during the judging process. The oral presentations are evaluated by each member of the assigned session judging team. The questioning period that follows the oral presentations aids judges in clarifying the student’s depth of understanding, the amount of work and level of effort, and the individual contributions to the research problem. Following the sessions, the individual session judging teams meet and deliberate to select finalists from each session.

**ALL JUDGES’ DECISIONS ARE FINAL**

**Judging criteria:** The following criteria are used to judge the research presentations.

**Quality of the research and experimentation** as evidenced by clarity in stating the problem, identification of the important variables, originality and ingenuity in the research design or apparatus, selection of proper equipment for the research task, recognition of the limitations in the accuracy and significance of the results obtained, and limitations of conclusions drawn to those that are clearly supported by the results.

**Evidence of students’ understanding** of the scientific and technical principles involved in the investigation.

**Originality in the choice and investigation of the topic**

**Acknowledgment of major assistance:** The student speaker must acknowledge any direct assistance received. As a researcher, the student is neither rewarded nor penalized by the judges for utilizing special advisers or equipment. Examples of areas of assistance that should be acknowledged include selecting the topic of research, planning and/or guiding the course of the research, gathering data, and constructing apparatus.

**The quality of the oral and written presentations** as evidenced by the organization of the paper, use of audiovisuals, clarity of enunciation, use of acceptable terms and grammar, voice projection, definition of terms when necessary, and capacity to handle questions. The presentation is important in the evaluation of the student, but content, not form, will be given the major weight.