

# JUNIOR SCIENCE AND HUMANITIES SYMPOSIUM

## JUDGES TRAINING



THANK YOU FOR  
VOLUNTEERING!!



UNM STEM-H Center *for*  
Outreach, Research & Education

# SPONSORS

- ▶ This event has been approved for listing by the National Association of Secondary School Principals.
- ▶ JSHS Program is a collaborative effort between the research office of the United States Departments of the Army, Navy, and Air Force, the Academy of Applied Science, and leading research universities throughout the nation. The Department of Defense generously provides the funding for the National symposium and JSHS scholarships.



U.S. DEPARTMENT OF DEFENSE

# GOAL AND OBJECTIVE

- ▶ The JSHS goal is to promote original research and experimentation in the sciences, engineering, and mathematics at the high school level and publicly recognize students for outstanding achievement.
- ▶ Our objective today is to choose the top students to be publicly recognized but to allow many a chance to participate and be recognized in the process.



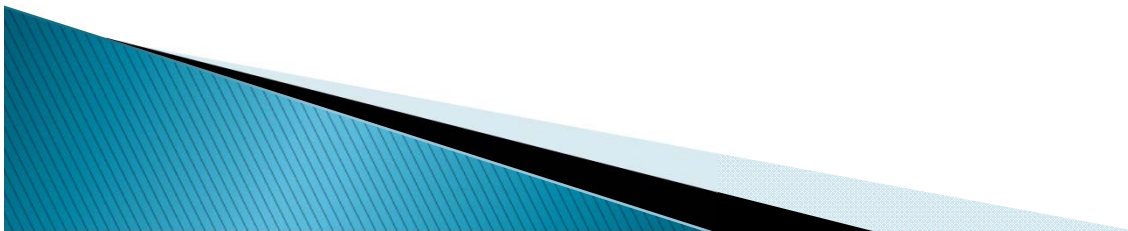
# STUDENT RESEARCHERS

- ▶ Students will have various levels of research and you will have a comment sheet to write encouraging, positive ideas for future improvements.
- ▶ Students may not have experience speaking publically before a group, so try to put them at ease before they begin.



# ABSTRACT AND PAPER

- ▶ You will have access to the student's abstracts and final papers.
- ▶ You will have the JSHS requirements for these two pieces.
- ▶ NOTE: Judging will be based almost entirely on their Power Point presentation.
- ▶ The papers are used for supporting documentation for the judges.



# ETHICS and SAFETY

- ▶ JSHS paper outline includes the following statement: *“as applicable, [a] statement that “research involving non-human vertebrates or human subjects was conducted under the supervision of an experienced teacher or researcher and followed state and federal regulatory guidance applicable to the humane and ethical conduct of such research”* [must be included].
- ▶ Hazardous substances and devices and potentially hazardous biological agents must be reviewed
- ▶ So judges may ask for verification that this was done. Students in a Science Fair should have the appropriate SRC and IRB paperwork.

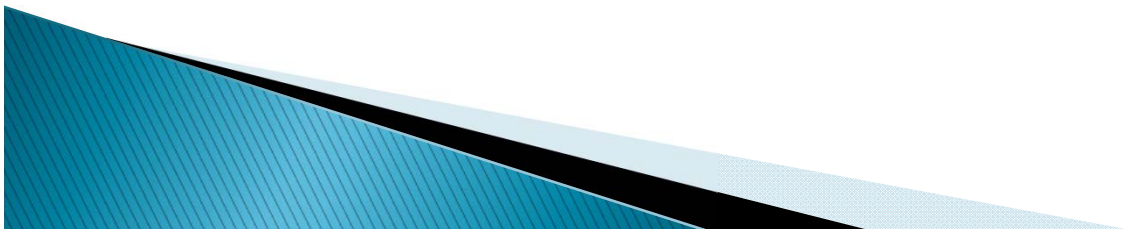
Institutional Review Board  
Scientific Review Committee





# ETHICS, continued

- ▶ Research for this presentation should be that done since May of the previous year.
- ▶ Prior research and results may be mentioned, but not as a major portion of this year's work.
- ▶ Students should acknowledge any work done by another person so it is clear what the student themselves have done.
- ▶ No plagiarism, forgery, fraud, misconduct etc.
- ▶ Again, judges may ask for clarification.



# ORAL PRESENTATIONS – TIPS FROM NATIONAL JSHS

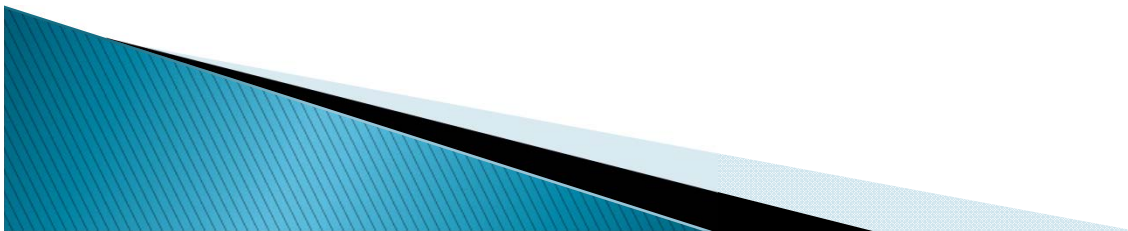
- ▶ Specialized experience in the student researcher's field may not be represented by the judges.
- ▶ Therefore, student presenters are to communicate their results so that they may be understood by both the non-specialized audience and by the judges.
- ▶ Judges should also encourage the students' interests and future development in the sciences, engineering, or mathematics.





# JUDGING PROCESS – PRESENTATIONS

- ▶ The oral presentations are evaluated by each member of the assigned session judging team.
- ▶ The questioning period which 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.



# PRESENTATION TIMING

(one judge will be given a stopwatch)

- ▶ The research presentation may not exceed 12 minutes, followed by a maximum 6-minute question period.
- ▶ The procedure for maintaining the time includes a 10-minute signal for the student, and finally a 12-minute signal. **At the 12-minute point, the student speaker must stop the presentation even if he or she has not finished.**
- ▶ Following the presentation, the judges may ask questions with a dialogue for up to 6 minutes.



# AUDIENCE QUESTIONS

- ▶ If the judges have no more questions and the 6-minute time is not up, the speaker may entertain questions from the audience, moderated by the judges, while the exchange appears interesting and relevant.
- ▶ Questions intended to harass the student speakers will not be allowed by the judge moderator.



# JUDGING CRITERIA

See the scoring sheet in your packet for the criteria:

- ▶ Statement and identification of research problem
- ▶ Scientific or engineering thought; creativity and originality
- ▶ Research or engineering design, procedures, results
- ▶ Discussion/conclusion
- ▶ Skill in communicating the research results --  
Oral presentation and written reports
- ▶ Acknowledgement of sources and major assistance received



# JUDGING PROCESS

- ▶ Following the sessions, the individual panel judging teams meet and deliberate to select the top presenters from each panel in each room (the number will be based on total presenters)
- ▶ During this process, the judges utilize the “National JSHS Judges Score Sheet” as a tool and consider the weight of each factor during their deliberations.



# TALLYING SCORES AND RECOMMENDING SATURDAY PRESENTERS

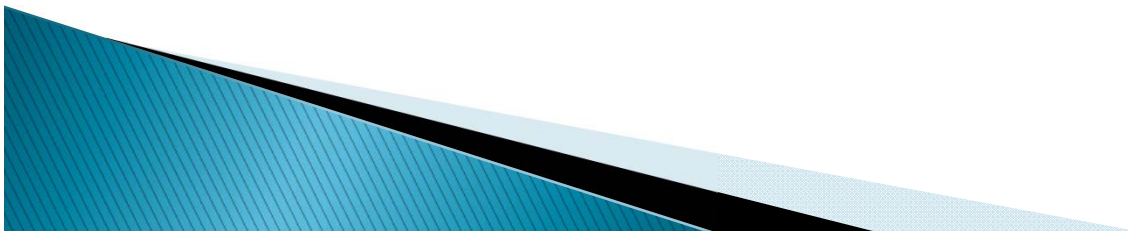
- ▶ Identify a "head Judge" for each panel. They will be responsible for filling out and tallying the scores for their room and returning the sheet to the scoring room.
- ▶ After all the presentations, the judges will rank as a panel the presenters from their room and identify those they would like to recommend to move on to the final round.





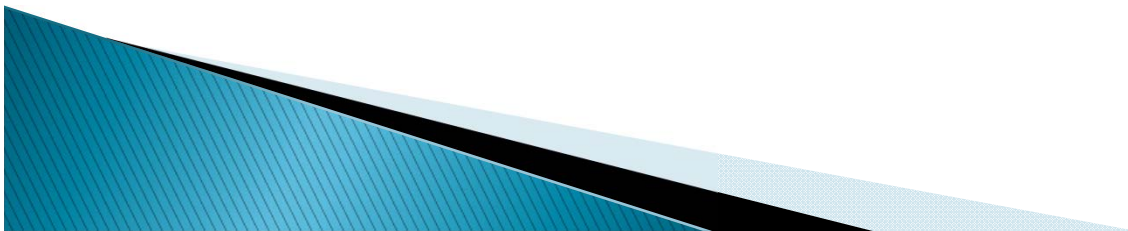
# CHOOSING SATURDAY PRESENTERS

- ▶ The head judges from each room will meet during dinner to discuss their panel's recommendations (as well as consider the raw scores that have been collected and ranked).
- ▶ The other judges from each room are welcome to also sit in and give input as asked by the head judges if there are difficult discussions in trying to choose finalists.




# FINAL CHOICE OF SATURDAY PRESENTERS

- ▶ The group of head judges will consider the score sheets and the input from the other head judges and then determine together the top 10 presenters moving on to the final round.



# SATURDAY SESSION OF FINAL PRESENTERS

- ▶ The same criteria and judge score sheet will be used for this session.
  - ▶ All judges will be involved in this process.
  - ▶ After all the presenters have finished, the facilitator will collect the score sheets and tally them.
  - ▶ The head judges, with input from all the judges present and the score sheet tally will determine the top 5 winners, and an alternate or two, depending on the level of research and oral presentation skills.
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# FINALISTS

- ▶ FIRST PLACE: \$2000 Scholarship
- ▶ SECOND PLACE: \$1500 Scholarship
- ▶ THIRD PLACE: \$1000 Scholarship
  
- ▶ UP TO TWO HONORARY MENTIONS
- ▶ POSSIBLE ALTERNATE(S)
  
- ▶ FIVE PRESENTERS WILL BE ELIGIBLE FOR AN EXPENSE PAID TRIP TO COMPETE AT NATIONALS. IF ONE IS UNABLE TO ATTEND, AN ALTERNATE MAY BE ASKED TO TAKE THAT PLACE AS APPROPRIATE.



# EXTRA TIME?

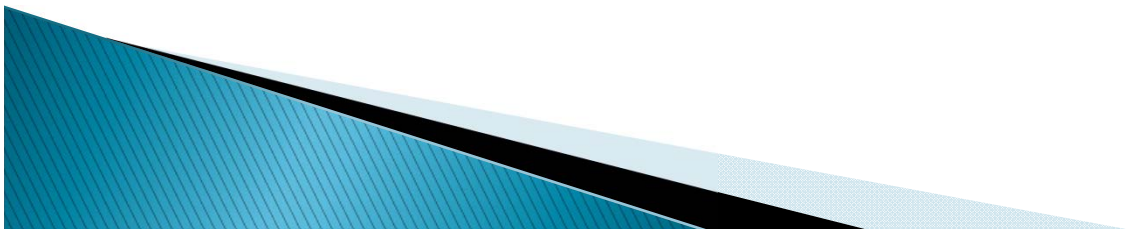
- ▶ As students finish their presentations, if it is under the 18 minutes, judges should continue to the next presenter.
- ▶ If there is a good amount of time at the end of the session, judges are encouraged to speak to the students about their careers.
- ▶ The National JSHS encourages this so students may see what possibilities are available!



# THANK YOU!

- ▶ THANK YOU SO MUCH FOR GIVING UP YOUR FRIDAY AND/OR SATURDAY FOR OUR STUDENT RESEARCHERS!!
- ▶ THIS IS OUR FUTURE!
- ▶ LET'S ENCOURAGE THEM TO EXCEL!

**MANY  
THANKS!**





# FIRST STEP – REGISTRATION

- ▶ Panels of judges will be announced.
- ▶ Judges will be given the abstracts and final papers the students have submitted for those in their session.
- ▶ The remaining registration time period will be for reading/skimming the abstracts and papers.

**Once again, on behalf of  
all of us, and the students,  
MANY THANKS!**

