



Junior Academy of Science Research Paper Competition Instructions & Notes for Judges

1. Our primary purpose is to **educate and encourage** the students. These are students who have spent time above and beyond their normal studies to write a technical paper and to present it. We should make every attempt to identify the positive points, and help improve the negative ones. It is very important to encourage them, especially those who can return next year (i.e., 11th grader and less). Remember, these are budding scientists and/or engineers who look up to us. We should try to keep **the experience positive and rewarding**.
2. We are looking for *research papers* not library research, collections, or gadgeteering. But massaging or manipulating data collected on the Internet is perfectly acceptable. The process the student used should follow the scientific or engineering method. However, it does not necessarily have to contribute to the scientific or engineering base of knowledge. But it should address a unique problem. For example, duplicating a well-known experiment is not innovative. Duplicating a well-known experiment with the objective of identifying a potential flaw may be very innovative.
3. The work we are judging is that of *a middle school or high school student*. It is not a masters or PhD thesis. Please keep in mind that these students have limited resources. However, also keep in mind that many of these students are very bright and could be very deep into a narrow subject area.
4. We are *comparing the papers of the students in this competition*, and not papers seen elsewhere under other circumstances.
5. A student should not be penalized for taking help from others -- that is common in the research community. However, it is essential that the *bulk of the effort be done by the student and that the student* understand what he/she is doing. Questions to the student should be aimed at assessing the depth of the student's knowledge about the subject.
6. We are looking for *thoroughness* in the paper. We should try to determine if the paper cites the problem, addresses it, and presents conclusions without diverging from the main point.
7. The paper should represent the *skill level of the student* and not a mentor or guide. It is okay for the student to have conducted the work under supervision of a professional, but the work should **not** be beyond the capabilities of the student.
8. *Clarity* in the paper and presentation is very important. We are looking for a clear, logical description of the project and its results.
9. **Please do not show your scores to the students.** This is a rule from the NJAS and the science fair. You are encouraged, however, to give the student written comments on a separate sheet or on the student's paper. The students look forward to receiving written comments and suggestions from the judges. Also, try to avoid scoring the student while he/she is speaking. This could be distracting.
10. Each student will have 10 minutes to present, with five minutes following for questions from the judges. You may want to prepare a few questions in advance. Questions to the student should be aimed at assessing the depth of the student's knowledge about the subject.
11. At Regional competitions after the presentations, please get the combined score totals from both judging forms, then caucus with the other judges to choose the 1st and 2nd place winners. If there is a good project as a close 3rd, you may wish to give an honorable mention. At the State competition choose the 1st, 2nd and 3rd place winners. If there is a good project as a close 4th, you may wish to give an honorable mention.
12. Please give the results and the students' papers to the director.
13. Please complete the Judges Program Evaluation Form for the director. This helps us to evaluate the program and track statistics needed for grant applications.