

SCIENCE FAIR NOTES FOR JUDGES

1. Provide a good experience for the students

The Twin Cities Regional Science Fair is more than a competition; it's an educational and motivational experience for the students. The high point of the fair experience for most students is being interviewed by judges!! You are an evaluator, a counselor, a motivator, and a role model with three main ways to communicate with the students:

Behavior: Be genuine and let the students show their stuff -- don't be the judge whose behavior or comment turns a student off science forever!

Interview: Put the student at ease - sit down, encourage conversation...smile! Ask students about their project, show you are interested, and let the student teach you something.

Feedback: The only written feedback the students will get from you are the comments you write on the comment sheet - please write as many comments as you have time for, especially if a student scored particularly high or low in one or more categories.

2. Choose the Best, Encourage the Rest!

Examine the quality of the student's work and how well they understand the project & area of study in each category listed on the scoring sheets. Focus on awarding points for things done; not penalizing the student for NOT doing something. How do you choose the best? Here are some key items that experienced judges and mentors often see in an "outstanding" project:

Evidence of substantial background research

Clear hypothesis

Good use of graphs and tables to present their data

Repeated experiments (done more than once or twice)

Statistical analysis (keep in mind the grade level of the student)

Student understanding of sources of error

IMPORTANT NOTE for new judges: It is **TOTALLY ACCEPTABLE** to disprove your hypothesis. Watch for scientific method and critical thinking skills.

3. Be consistent with your scoring

Every judge scores a little (or a lot!) differently; however, with our new normalization process in place, we are able to minimize those differences between judges and more accurately choose the best project! To make this process work, each judge must judge their OWN projects consistently - don't worry about matching another judge's score! Be sure to go back through your scores after judging all the projects in one session and make sure that your final scores correspond with the order in which you would rank your projects. Revision of scores is expected (and encouraged!) if it leads to more consistent evaluation of several projects.

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SAMPLE QUESTIONS:

To Judge Creative Ability:

Why is this project important to you?

Where did you get the idea for your project?

What did you enjoy most about your project?

Of what value is your project to society?

What problems arose during your investigation? How did you overcome them?

Do your results indicate further study is needed?

To Judge Scientific Thought or Engineering Goals:

What is the purpose/objective of your study?

What are some previous studies?

What are possible sources of error?

What is/are your controls?

Why did you do the statistical analysis you did? What does it mean? (Older students should have an understanding of the use and limits of the statistics used in their project. High school kids should not use t-score for everything... including if they have only 3 sample points!)

To Judge Thoroughness:

How many times did you repeat your tests?

On what did you base your conclusions?

Are there any other approaches you might have taken to your research?

How much time did your study take?

To Judge Skill:

What instruments did you use for your measurements?

Who helped with your project?

Do you think you could continue this project on your own?

What would you do differently if you repeated your work now?

What would you do next? What's the next step?

It's up to each judge to determine how much of this project is the student's and how much is the mentor's or parents...and to only give points to the student's portion. In the case of projects done in a research lab or university, each student who performed their research at a research institution will have a form (Form 1C) displayed at their project, filled out by their mentor, detailing the student's contribution to the project! This, plus talking to the student and using your Score Sheet as a guide, will help keep the playing field level between "home brew" and "mentored" projects, yet allow those students who really excel at science to succeed!!

Reminder: projects that should move on to state science fair should be scoring 90 and above. Please adjust accordingly. REMEMBER to stay consistent!

****When you get your judging packet, be sure that you are not judging a relative, or close friend, or your student. In fact, it is a good idea to not judge someone from your own lab, or you may not give the student a level playing field compared to the other projects, and it certainly takes away from the experience if the student presents to someone they see on a regular basis.

If you get a project you'd rather not judge, please bring it to the judging table for reassignment... even if we need to reassign only one project from your packet. If in doubt, ASK.

Last bits: Ribbon judges judge independently, not in groups. It gives the students the maximum benefit! Only a few special awards judges judge in groups.

Dress code: casual business. NO HEELS. MUST wear flats or tennis shoes (special track floor requirements). (MAKE SURE THAT YOU ARE COMFORTABLE!)

Pace yourself... about 10 minutes a project (15-20 may be needed for the most advanced high school projects... but the kids should be able to give you a shorter explanation than that!).

Enjoy some dinner! Perhaps talk to some of the other judges, fill out comment sheets, whatever.

When you pick up your judging assignment you will notice that we are again not using the Score Summary card. It is up to you to keep track of your own scores to stay consistent in your rating. You will have two pieces of paper for each project: a score sheet and a comment sheet (check list). Do NOT give any paper or score to the student. Turn in both the comment sheet and the score sheet to the Judges' Table.

Comment sheets: PLEASE give each student something they did well, and something to improve (if possible). This is all the student will get back, so please write them some comments! The students are SO DISAPPOINTED if they get back nearly blank comment sheets. That is their "life line" to know how to improve. We simplified the comment form by providing a check sheet for areas that the student needs to

improve and a blank area for comments. Be constructive and encouraging – but efficient. We don't want to spend 10 minutes commenting on each project.

If a project requested electricity or floor space, they are located along the wall towards University Ave. We have deliberately left a blank space among the projects to indicate that the project is on “electricity row”. Do not assume a blank space between projects means “no show”.

PLEASE-- when you are done judging your first packet, PLEASE come back and get another packet. We want the high school kids judged 4 times this year for ribbons, not including special awards, and the middle school kids judged 3 times excluding specials.

We ask that undergrad students judge grades 6-8 or Special Awards only. The minimum requirement we ask from our judges judging high school (grades 9-12) is either a bachelor's degree or 5 years full time experience working in a science or engineering field. If in doubt, ask. We are thankful to our MD, DVM, DDS, & PhD judges! We need your expertise at ALL grade levels. You are impacting our future generation by encouraging them in STEM!

Another note: Although we tried to give you your category choice, our project quantities do not exactly match our judge base expertise. Therefore, we ask you to be willing to help us out by (if needed) judging some projects that are not in your field. The student should be able to adequately explain their project to someone not versed in the jargon and current issues in the field. Thank you for helping us out with this!

THANKS SO MUCH for helping make this a fun experience for the kids... and a learning experience, too!

See you about 3:30 p.m. on Friday.

We will have the fair NO MATTER the weather. But if in doubt, there will be an announcement (written) on the front home page of our website at <http://www.tcrsf.org/> by 8:00 a.m. on Friday, and by 7:10 a.m. on Saturday.

Judges and volunteers may help themselves at any time to the buffet style food in the Judges Area. The catered food should be available starting about 3:30 and pizzas are ordered to be delivered at 6.

THANK YOU! See you Friday!!! (A service hours letter is available to turn in to employer/school.)

TCRSF Judging Committee <judging@tcrsf.org>