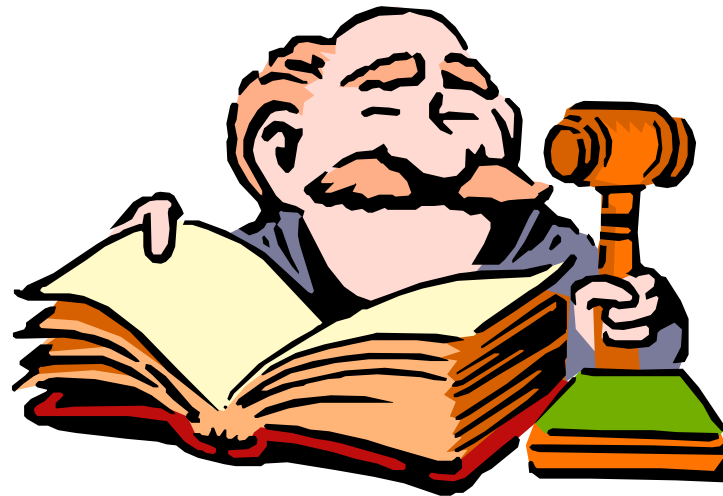


# Judge Training Workshop



**Central NM Science & Engineering  
Research Challenge**

# Finding Judges

- **Word of mouth**
- **Judge Info page of website**
- **Volunteer database**
- **E-mail**
- **Phone calls (last resort)**
- **Student feedback**
- **Work practice observation**
- **Quality of Fair**
- **Quality of judging experience**

# Benefits of Being a Judge

- **Excellent Opportunity to Network.**
- **Develop Communication Skills.**
- **Develop Analytical and Evaluation skills.**
  - Translates into leadership and management skill base
- **Sharpen your Investigative Skills.**
- **Build Self Confidence.**
- **Share Knowledge with Today's Youth.**
- **Have fun while helping others.**

# **Why is Training Important?**

- **Up to 33% or more of the judges each year will be first time judges.**
- **Contestants will have more contact with Judges than anyone else in the Research Challenge.**
- **Judge interaction with the contestants is the image left behind after the event.**
- **Judging quality ensures the right winners are rewarded.**
- **Judging quality raises the quality of future competitions.**

# **What Judges Need to Know**

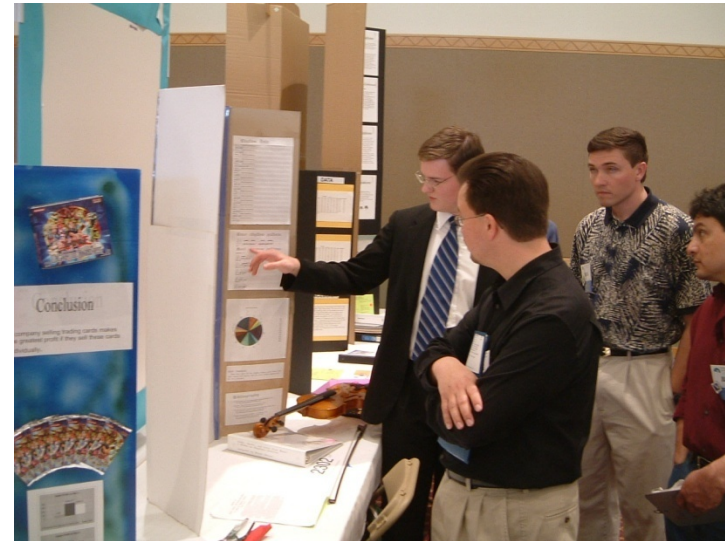
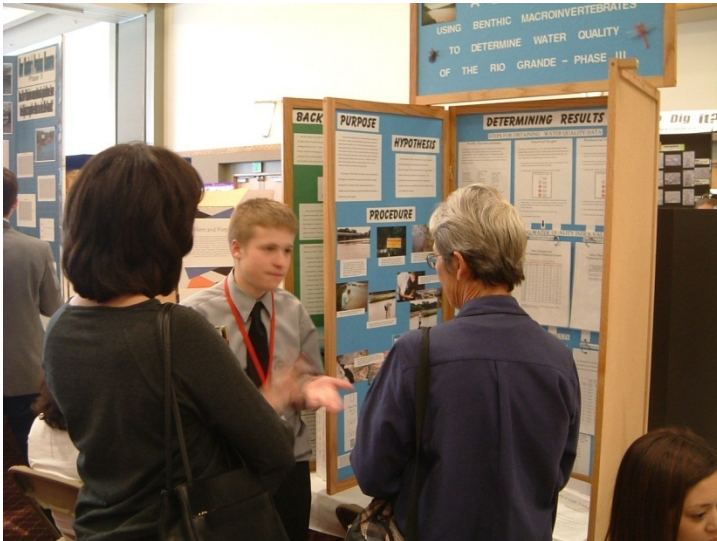
- **Who will be my contacts at the event?**
- **Date, time and judging day schedule.**
- **What to expect at the event.**
- **What is expected of them as Judges.**
- **People skills in handling students.**
- **How to use judging materials.**
- **How to dress.**
- **What's in it for me (WII-FM)?**

# What does the competition look like?

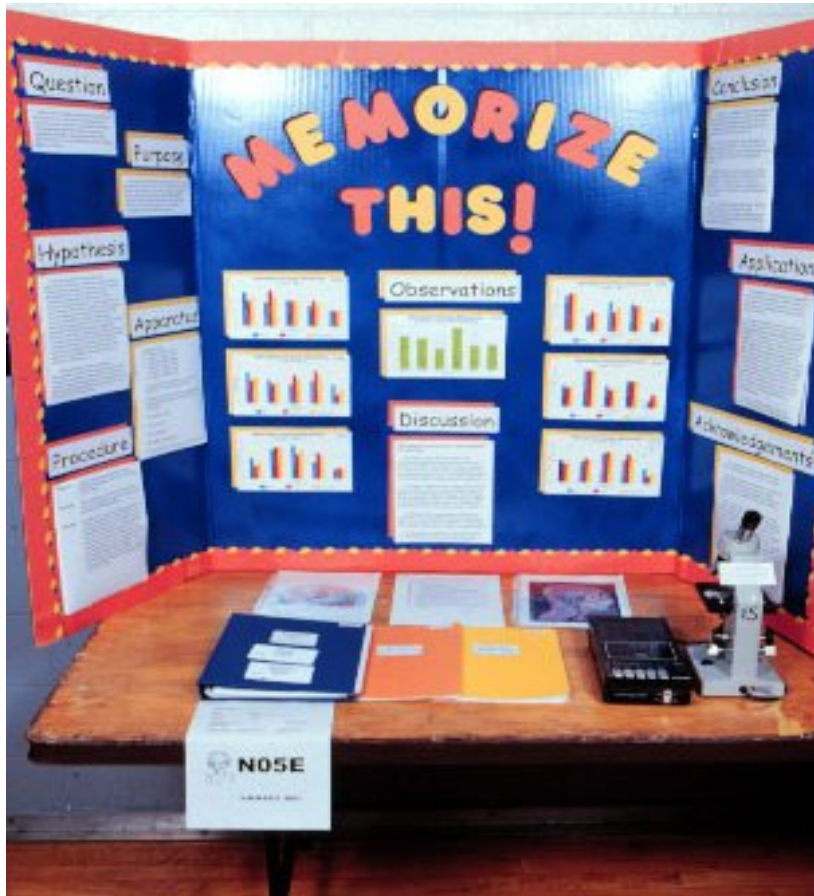




# What does an interview look like?



# What does a project look like?





# The Roles of a Judge

- **Evaluator**
- **Facilitator**
- **Counselor**
- **Motivator**
- **Role Model**

# **Provide a Good Experience for the Competitors**

- **Be Genuine.**
- **Let the contestants show their stuff.**
- **Encourage conversation.**
- **Avoid value judgments.**
- **Give one opportunity for improvement.**
- **End meeting on a positive note.**

# Judge Behavior with Students

- **Work to put students at ease.** *(Sit Down)*
- **If students are intimidated, they will not speak freely.**
- **Show you are interested.**
- **Listen actively.**
- **Give positive reinforcement to nourish self esteem.** *(say what you like about project)*
- **Ask students about their project, not just what they did or the steps they took.**

# Judge Behavior with Students

- Ask students enough questions to satisfy yourself that they understood the project.
- When you have reached the student's knowledge limit, **STOP!** asking questions.
- Have 1 positive comment for every student.
- Remember when you were 12 years old!
- Let the student teach you something.

# Suggested Wording

## Personalize your language

- I liked....
- I enjoyed....
- I feel that.....
- I see that.....

## If asked...

- I suggest...
- A technique I have used.....
- The project would have more impact on me if....



# Judging Tips and Tricks

- **Get there early.**
- **Set timing goals for your exhibits.** *(10-15 min per project)*
- **Contestants' understanding is as important as the project.**
- **Revise your scores as many times as you need.**
- **Don't tally judging sheet in front of Contestants.**
- **If stuck on a project, see your Category Chair.**
- **Judging is finished after the 2<sup>nd</sup> Judge and Category Chair Meeting is completed (usually around 12:45pm). Be prepared to stay until 1:00pm especially if you are in a larger category.**

# How to Judge a Project

*Before starting to judge, see your assigned projects to get a feel for what they are about, what they look like, and their location.*

## To judge a project do the following:

- Read through the display board in some logical order.
- Assess its impact, and how well it tells the "story" of the project.
- Do you quickly understand what the project is trying to do, and what the results were?
- If equipment or devices are part of the display, do they serve an obvious purpose based on what you have seen so far?

# How to Judge a Project

- **Read through the abstract. Assess it.**
- **Read through the workbook** (*journal and/or report*). **Assess it.**
- **Write down questions and compliments, for use in the Interview, and add to comments section of the judging form.**
- **Note your marks.**
- **Do not "team-judge."** Ask your Category Chair or another experienced judge if you have any questions during judging.

# How to Judge a Project

- **Once all projects are interviewed & scored:**
  - Write down the rank order of the projects you have judged, based on your day's overall impressions.
  - Which one is best?
  - Which should be at the bottom of the list?
  - Now check the total score you have assigned to each project.
  - Is your ranking impression consistent with the marks you've assigned? Decide if you need to review anything.

# Sample Judging Rubric



## Judge's Scoring Guidelines & Worksheet for SCIENTIFIC & ENGINEERING RESEARCH PROJECTS

*\*Award the Best ... Encourage the Rest\**

Project Number: \_\_\_\_\_ Title/Key Words: \_\_\_\_\_

Judge scoring is conducted using a 100-point scale, with points assigned to *Research Question, Design/Methodology, Data Collection-Analysis-Interpretation, Creativity, and Presentation (poster & interview)* for Scientific Projects OR *Research Problem, Design/Methodology, Construction & Testing, Creativity, and Presentation (poster & interview)* for Engineering Projects. Review the criteria carefully and use the one **most** appropriate (scientific project or engineering project) for each project you are judging. Team projects have a slightly different balance of points including points for **teamwork**. The following is a set of criteria that can assist you in interviewing and scoring your projects. A more thorough discussion of the criteria can be found in the Judging Guide.

GUIDELINES	NOTES <small>This form is NOT given back to exhibitors! Please use Project Feedback Form for comments you want to share with the student(s).</small>	MAXIMUM POINTS AVAILABLE	POINTS GIVEN
<b>I. RESEARCH QUESTION – SCIENTIFIC PROJECTS</b> <ul style="list-style-type: none"> <li>Clear and focused purpose</li> <li>Identifies contribution to field of study</li> <li>Testable using scientific methods</li> </ul> <b>OR</b> <b>RESEARCH PROBLEM – ENGINEERING PROJECTS</b> <ul style="list-style-type: none"> <li>Description of a practical need or problem to be solved</li> <li>Definition of criteria for proposed solution</li> <li>Explanation of problem constraints</li> </ul>		10 Points MAX	
<b>II. DESIGN &amp; METHODOLOGY – SCIENTIFIC PROJECTS</b> <ul style="list-style-type: none"> <li>Well designed plan and data collection methods</li> <li>Variables and controls defined, appropriate, and complete</li> </ul> <b>OR</b> <b>DESIGN &amp; METHODOLOGY – ENGINEERING PROJECTS</b> <ul style="list-style-type: none"> <li>Exploration of alternatives to answer need or problem</li> <li>Identification of a solution</li> <li>Development of a prototype/model</li> </ul>		15 Points MAX	
<b>III. DATA COLLECTION &amp; METHODOLOGY – SCIENTIFIC PROJECTS</b> <ul style="list-style-type: none"> <li>Systematic data collection &amp; analysis</li> <li>Reproducibility of results</li> <li>Appropriate application of mathematical and statistical methods</li> <li>Sufficient data collection to support conclusions</li> </ul> <b>OR</b> <b>CONSTRUCTION &amp; TESTING – ENGINEERING PROJECTS</b> <ul style="list-style-type: none"> <li>Prototype demonstrates intended design</li> <li>Prototype has been tested in multiple conditions/trials</li> <li>Prototype demonstrates engineering skill &amp; completeness</li> </ul>		20 Points MAX	

<b>IV. CREATIVITY</b> <ul style="list-style-type: none"> <li>Project demonstrates creativity in one or more of the above criteria</li> </ul>		20 Points MAX	
<b>V. PRESENTATION – DISPLAY BOARD/POSTER</b> <ul style="list-style-type: none"> <li>Logical organization of material</li> <li>Clarity of graphics and legends</li> <li>Supporting documentation displayed</li> </ul>		10 Points MAX	
<b>VI. PRESENTATION - INTERVIEW</b> <ul style="list-style-type: none"> <li>Clear, concise, thoughtful responses to questions</li> <li>Understanding of basic science relevant to project</li> <li>Understanding of interpretation and limitations of results and conclusions</li> <li>Degree of independence in conducting project</li> <li>Recognition of potential impact on science, society, and/or economics</li> <li>Quality of ideas for further research</li> <li>TEAM PROJECTS – Contributions and understanding of project by ALL team members</li> </ul>		25 Points MAX	
<b>TOTAL POINTS =</b>		<u>100 points MAXIMUM</u>	

*Keep this sheet with you and use it to take notes. Actual scores and comments are recorded on other forms.*

**PLEASE RETURN THIS FORM TO YOUR JUDGE CHAIR WHEN YOU HAVE COMPLETED THE JUDGING PROCESS AS IT IS SENSITIVE INFORMATION THAT IS SHREDDED AFTER THE COMPETITION.**

ADDITIONAL NOTES...



# Sample Questions

- **Why did you decide to study this topic?**
- **What are your controlled variables?**
- **How accurate are your readings?**
- **What future applications can you see from the results of this project?**
- **What one outstanding thing did you learn doing this project?**
- **How would you improve this project if you would do it again?**

**ENJOY this unique  
experience!**

**Remember the reason we do all  
this is for the students!**

*Obrigado!*

**THANK  
YOU**

*Vielen  
Dank*

*Gracias*

شكراً

*Merci*

ขอบคุณ

*Eυχαριστώ*