

Southeast Alaska Regional Fair Judging Protocol - 2010

2010 Schedule – Marie Drake Gym

**Fri March 12 : 5:00-9:00 Public Open House (posters/notebooks setup)
5:30 and & 7:00 judging workshop (new judges, 30 min)**

**Sat March 13 : 7:30-8:00 Judging workshop/judge registration
8:00-9:00 Judge Preview – no students
9:00 – 11:00 Judging (no special award judges allowed)
11:00 – 12:00 Special Award Judges
12:00-1:00 Public Open House with Students
7:00 Awards Ceremony at UAS Library**

Sun March 14 Noon – 6:00 Tier 2 Judging

Judging Overview

The SEAK Regional Science Fair judging protocol and philosophy are modeled from the INTEL International Science and Engineering Fair (ISEF). Members of the judging committee have attended the INTEL ISEF multiple times and have participated in their judging workshops. Our fair uses a two tiered competition where all students are initially judged 4 times (Tier 1) and the top 8-10 projects advance into a final competition (Tier 2). Winners of Tier 2 attend the INTEL ISEF, a fair with 1500 other regional fair winners.

A. Judge Selection

1. Projects are judged by volunteers largely drawn from the local scientific community. Names are gathered from previous email lists, grass routes connections, and communications sent to department heads of local government agencies in Juneau.
2. Contact with judges is only conducted by electronic mail by Bonita Nelson. Electronic and hard copies of communications are kept from initial contact 6 weeks before the fair until the fair is complete. The list of attending judges as well as those who could not judge but request to be kept on the list is updated after the fair.
3. Any interested community members allowed to judge if they have an understanding of the scientific method and will agree to attend a 30 training session. We feel that a good judge not only has the basic understanding of the scientific method, but also enjoys (and hopefully has experience) working with high school students as well as has expertise in a scientific, engineering, medical or related field.
4. Judging training is provided 3 times before the fair for new judges. Judging committee members will be available during the fair for consultation.

B. Project Evaluation Process – Tier One

Assigning judges to projects. The judging committee reads the procedures and abstracts of each project. A judging category is assigned to each project indicating the type of judging expertise the project requires. Projects are grouped together in groups of 4 and are assigned a group of 4 judges (a caucus group). Efforts are made to include at least 2 experienced judges in each caucus group as well as both men and women.

Project Evaluation Process The project evaluation process begins with a 60 minute preview session on March 14th at 8:00 am before the students arrive. The displays are set up and available for inspection. The students arrive at their projects at 9:00 am and judges are given 30 minutes to evaluate each project with the student(s). Judges are given a scheduled time to be at each project so no overlapping occurs. Score sheets are provided and judges choose point categories and fill in comments for their evaluation. Points are only used to award prizes (primarily INTEL ISEF sponsored) not to evaluate which projects advances into Tier 2.

The 4 judges of each caucus group meet for 15-20 minutes after they have judged their 4 projects to reach a consensus recommendation of projects for advancement into Tier 2. Each caucus group will record their summary information on a provided form. The guidelines for advancement into Tier 2 are taken from: http://www.sciserv.org/isef/judges/judges_criteria.asp, the INTEL ISEF protocol.

Conflict of Interest These concerns are addressed by consulting a reference list which included student's parent's names and mentor's names when assigning judges. Judges for projects where students had relationships with judging committee members were assigned by alternate committee members. All judges were asked to report any conflict of interest concerns to the committee.

Judging Philosophy The majority of the students in this fair are participating as a result of a class assignment as are freshmen or sophomores taking advanced science classes. The main emphasis for them is to have demonstrated the ability to understand and apply the scientific method. Consequently, many projects may be lacking rigor or sophistication since students are new to the process. However, approximately 25% of the projects display a greater degree of complexity from highly motivated or experienced (juniors and seniors) students. Our fair follows the ISEF guidelines of reminding judges to evaluate projects by comparing those to other in this fair ONLY. Therefore, we encourage all of our judges to not only view their assigned projects, but to also preview several other projects at the fair during the Friday open house session.

C. Tier 2 - Advancement Selection Process

Members of the judging committee review approximately 24 projects each for possible advancement into Tier 2. These projects are selected to match committee member's expertise. To avoid conflict of interest or biasing in the judging process, additional committee members are recruited (who have no connection with any student in the fair) to participate and oversee the processes. These additional committee members are assigned all the projects that were in potential conflict with the interests of existing committee members.

Each judging committee member meets with 4-6 judging groups to moderate their discussions concerning which projects should advance into Tier 2 competition. Judging committee members record the judging group evaluations and then compile the final list of advancing projects. An

outside observer, not a member of the judging committee, witnesses the discussions. Each project advancing is evaluated using INTEL ISEF advancement criteria which assess the investigative research techniques, acquired skills and knowledge and potential for publishable results. If necessary, committee members will return to projects for further evaluation.

D. Tier 2 Competition – Winners attend INTEL ISEF

The Tier 2 selection committee consists of 3 PhD scientists from the community with previous experience working (mentoring and judging) with students at previous SE AK Regional Science Fairs and who are published experts in their field. They are provided with judging material that included all of our score and tally sheets, judging tips from other science fairs and INTEL ISEF judging criteria. This panel is charged with reaching a consensus agreement on which one team and two individual projects should advance into competition at INTEL ISEF and which projects are alternates. The judging committee has no influence in these decisions.

The tier 2 judging process consists of a 60 minute preview of posters and notebooks by the judges followed by 20 minute student interviews. Winners are announced Monday morning.

Our main priority is to insure that each and every student in our fair has a positive experience during the judging process and we encourage judges to provide constructive comments on score sheets. We welcome new judges and encourage undergraduate and graduate students to help us with judging.

For more information contact: Bonita Nelson (bonita.nelson@noaa.gov)