



Florida Junior Academy of Science and Florida Science Talent Search

A Division of the Florida Academy of Sciences
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Welcome 2004-2005 members!

The Florida Junior Academy of Science (FJAS) welcomes you to our organization. We hope that 2004-2005 will be a good year for both you and FJAS. Many opportunities are available to students conducting scientific research. Below are deadlines of a few of the many competitions and events:

- Nov. 17 - entries due for Intel Science Talent Search (12th graders only)
 - Feb. 1 - research papers due for FJAS preliminary competition
 - Feb. 6-8 - Florida Junior Science Engineering & Humanities Symposium* at University of Florida in Gainesville
 - Feb 16-20 - American Junior Academy of Science Washington DC
 - Mar. 19 - FJAS* competition at University of South Florida in Tampa
 - Apr. 6-8 - State Science & Engineering Fair of Florida* in Orlando
 - May 8-14 - Intel International Science & Engineering Fair* in Phoenix AZ
- *Students winning at these competitions may win trips to national or international events

Congratulations to AJAS Winner

Each year FJAS competitors are offered the opportunity to apply to present research at the American Junior Academy of Science and the annual AAAS meeting. This year Cristina Fernandez of Pine Crest will spend Feb. 16-20 in Washington DC sharing her research with scientists and peers from around the country.

Florida Junior Academy of Science

FJAS offers you another opportunity to compete at the state level with your scientific research. FJAS and the State Science Fair (SSEF) have similarities and differences.

Similarities of FJAS and SSEF:

- Students must use ISEF forms and obtain appropriate approvals PRIOR to experimentation
- Students compete with their peers in Junior and Senior divisions
- Students are judged by university professors and scientists in the field
- Students are awarded plaques and other awards

Differences between FJAS and SSEF:

At FJAS

- Only FJAS members can compete
- Literary research is a category
- Only individual research is presented
- Abstract is shorter and lay language
- Research papers are submitted for a preliminary judging instead of competing at a regional fair
- Ten to 12 students are selected to compete in each session at the state competition
- Oral presentations are given with slides, transparencies, or other visual aids **but not** a board
- Sessions may combine related categories based on the number of entries
- Seniors may also compete in Florida Science Talent Search at the same time
- Student observers are welcome

The Choice is Yours - Experimental or Literary?

Experimental research allows the student to test a hypothesis and draw conclusions using their data while following the Scientific method. Literary research allows the student to thoroughly investigate an area where experimentation is impossible due to costs, regulations, ethics or moral grounds, or the impracticality of experimental design.

Experimental research offers more opportunities to compete. See an extended list of competitions on the website: www.floridaacademyofsciences.org.

Your sponsor has information sheets for each of these types of research.

Top 10 Research Problems

Below is a compilation of the most common complaints and criticisms offered by student researchers, their teachers, and judges.

Procrastination - You know the deadlines; Do what you can today, it will not go away!

Inadequate Background Research - Use recent journal articles. Make proper citations

Inaccurate records - Write EVERYTHING down from page numbers of articles to observations you never thought you would forget. Date all data sheets.

Poor Experimental Design - Have many people read your plan, if they can't repeat it, rewrite it. Control all variables.

Not Enough Data - Plan the experiment to have plenty of samples; more is better.

Not Repeating the Experiment - Repeat the experiment or run two or three separate trials at the same time.

Not Analyzing the Data Properly - Inferential statistics should be used to analyze the data and draw a conclusion. Understand what the test can and can't do.

Poor Paperwork - Be sure all ISEF forms are completed and approved PRIOR to experimentation. Submit copies by Feb 1.

Silly Errors - Spelling punctuation and grammar make a difference. PROOFREAD!

Procrastination - Before you know it "tomorrow" is "yesterday". Do it NOW!

For Seniors Only Florida Science Talent Search

Seniors who conduct experimental research can compete in both FJAS and Talent Search at the March meeting. Through Talent Search, outstanding Seniors are recognized for their hard work throughout their high school career. Two seniors will win trips to the National Youth Science Camp (NYSC) in West Virginia. Others will win scholarships, AAAS memberships and plaques. To compete in Talent Search and FJAS, two entry forms must be completed PRIOR to submitting papers for Feb. 1st deadline. Your transcript, resume of activities and awards must be attached to the Talent Search form.

At the March meeting a registration fee of \$5 is required along with an interview with the Talent Search Coordinator.

Robin Hunter reports on NYSC

Last March Robin Hunter won the opportunity to attend NYSC by competing in Florida Science Talent Search. He reported that the trip was a life-changing experience. Even though the student must promise to keep all of the details secret he was able to share that it was more valuable than the \$2000 that he could have earned at a summer job.

**You can't win if you don't compete
You can't compete if you don't get to work!**

FJAS Members Win More at SSEF

For the 8th year FJAS members who competed at both FJAS and SSEF won significantly more awards at SSEF. It is not just the quantity of awards, proportionally, but the quality. FJAS competitors won significantly more First and Second Place awards. Help yourself win more by competing in FJAS.

ISEF FORMS and proper approval are REQUIRED before experimentation. Photocopies of Forms 1A, 1B, 1C, 2, 3, 4, 5A or 5B, 6, and 7 MUST be submitted with the paper for Feb. 1st preliminary competition or the paper will NOT be considered.



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Dear FJAS Sponsor or Individual Member,

This year's competition will be at the University of South Florida in Tampa on March 19, 2005. Tentative plans have the competition following the same schedule as last year's:

9 AM to 10 AM	Registration
9:45 AM	Welcome
10 AM to 1 PM	Presentations in Concurrent Sessions
	Interviews for Talent Search Students
1 PM to 2:30 PM	Lunch on own - Visit campus
2:30 PM to 4 PM	Business Meeting immediately followed by Awards Ceremony

Hotel information is not available at this time. It will be sent with the next newsletter.

As in the past photocopies of the ISEF forms are required to be submitted with the research paper for preliminary competition for any project dealing with the special areas: Humans, Vertebrates, Pathogens, Tissue, Recombinant DNA, Controlled Substances, Hazardous Procedures, and working in a Scientist's Lab. In the past, papers that did not submit these photocopies, when it was apparent that additional forms were required, lost points in the "following rules" section for preliminary judging - this year **if the forms are missing the papers will NOT be included in the competition.**

February 1st is a Tuesday. I may try to deliver the papers to the readers that evening so all papers **MUST** arrive before 5 PM on Tuesday. Most people can use regular mail if mailing entries by Thursday, January 26th. **Please do NOT put your students' papers at risk by mailing the papers late or by using a method that requires a signature for delivery.** Often there is no one home during the day to sign for the packages.

Thank you for your understanding about these two concerns.

There is a change from a 75 word abstract to 100 words as can be seen in the guidelines for the Experimental and Literary Papers. This change aligns the FJAS requirements with those of the Intel Science Talent Search competition.