



# Florida Junior Academy of Science and Florida Science Talent Search

A Division of the Florida Academy of Sciences

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## **Welcome 2003-2004 members!**

The Florida Junior Academy of Science (FJAS) welcomes you to our organization. We hope that 2003-2004 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. 19 - entries due for Intel Science Talent Search (12th graders only)

Feb. 1 - research papers due for FJAS preliminary competition

Feb. 1-3 - Florida Junior Science Engineering & Humanities Symposium\* at University of Florida in Gainesville

Mar. 13 - FJAS\* competition at University of Central Florida in Orlando

Apr. 14-16 - State Science & Engineering Fair of Florida\* in Jacksonville

May 10-14 - Intel International Science & Engineering Fair\* in Portland OR

\*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 **Aaron Wise** of Hillsborough High School will spend Feb. 12-17 in Seattle, Washington sharing his 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
- 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 **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](http://www.floridaacademyofsciences.org).

**See the instruction sheets at this website**

### **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 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. 1<sup>st</sup> 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.

#### **Evaluation of Talent Search Entries**

- 20% GPA and class rank
- 30% SAT or ACT scores
- 35% Ranking from FJAS competition
- 10% Scientific Potential based on resume
- 5% Personal Interview

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

#### **FJAS Members Win More Awards at SSEF**

For the 7<sup>th</sup> 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, 5, and/or 6 MUST be submitted with the paper for Feb. 1<sup>st</sup> competition or the paper will NOT be considered.

#### **Plans for the 2004 FJAS Competition**

This year's competition will be in the same wonderful facilities as the 2003 competition, University of Central Florida in Orlando. We have not received the accommodations list yet but you may want to call the hotel you used last year to see if they have any special rates yet. Remember to ask for the FAS rates. The competition will basically have the same schedule on March 13, 2004 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 3 PM Lunch on own - Visit campus  
3 PM to 4 PM Business Meeting immediately followed by  
Awards Ceremony

### **Policy Changes - All projects must submit copies of ISEF forms**

In the past I had required photocopies of the ISEF forms to be submitted with the paper for preliminary review 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. This requirement came from a possible "fail to qualify" at SSEF. I felt it would be irresponsible to allow a student who did not meet the SSEF requirements to compete at FJAS. Last year this did happen and one student who competed at FJAS was not allowed to compete at SSEF. For this reason I am changing the requirement. **ALL projects will need to submit the photocopies of the Forms**, not the attachment - since the method is in the paper, with the Research paper in time for the preliminary competition. In the past I just marked down the "following rules" points if the forms were missing - this year the **papers will NOT be included in the competition.**

### **Change in Preliminary Deadline**

Also be aware that February 1<sup>st</sup> is a Sunday. I will be delivering the papers to the readers on Sunday so all papers **MUST** be before noon on Sunday. Most people can use regular mail if mailing entries by January 27<sup>th</sup>. **Please do NOT put your students' papers at risk by mailing the papers late or with a signature required for delivery.** Thank you for your understanding about these two concerns.